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**INFORMATION REPORT      INFORMATION REPORT**

**CENTRAL INTELLIGENCE AGENCY**

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**C-O-N-F-I-D-E-N-T-I-A-L**  
**NOFORN**

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(Note: Washington distribution indicated by "X"; Field distribution by "#")

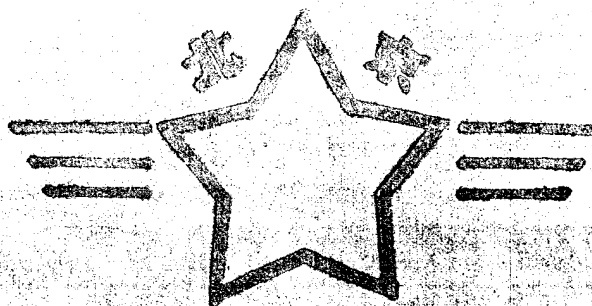
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**PEKING**  
**ELECTRON TUBES**



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## P R E F A C E

*In order to satisfy the requirements of the large-scale economic construction throughout our country and the needs of the people's daily-growing living standard, the modern Peking Electron Tube Facotry has been built and put into operation with the technical assistance of the Soviet Union.*

*The stock products of our factory are mainly tubes of Soviet selested types with excellent characteristics. In the course of manufacture all the tubes have to go through strict controlling processes; excellent quality and long service period are thus guaranteed. They have earned much praise from all the customers who have used them.*

*The products of our factory can meet the requirements of different industrial branches. We hope you would place your orders at our factory. All kinds of samples for trials are at your disposal upon request.*

## TYPE NUMBERING SYSTEM

The PEKING type electron tubes are indicated according to a type numbering system, which provides information concerning electrical data, uses and constructional characteristics of the tube. This system is in general use on the U.S.S.R.

### RECEIVING AND AMPLIFYING TUBES

The type numbers for receiving and amplifying tube consists of the four following symbols:

#### FIRST SYMBOL: Rating of Filament or Heater

- 1 — 1.2 volt filament
- 2 — 2.2 volt to 2.5 volt filament or heater
- 4 — 4.2 volt filament or heater
- 6 — 6.3 volt heater

#### SECOND SYMBOL: Electrode System

- A — Heptode
- B — Diode — Pentode
- Ж — Sharp-cutoff Pentode
- K — Remote-cutoff Pentode
- H — Twin Triode
- Π — Beam Tetrode or Output Pentode
- C — Triode
- X — Twin Diode
- Ц — Half-wave or Full-wave Rectifier
- Э — Tetrode
- E — Tuning Indicator

#### THIRD SYMBOL:

The third symbol is a figure indicating the ordinal of the tube type.

#### FOURTH SYMBOL: Constructional Characteristics

- C — Glass envelope with octal base
- Л — Glass envelope with loctal base
- Π — Miniature type (7-pin or 9-pin base)

### Examples

1A2Π	1 1.2 volt Filament	A Heptode	2 2nd type	Π Miniature 7-pin
6H1Π	6 6.3 volt Heater	H Twin Triode	I 1st type	Π Miniature 9-pin
4Π1Л	4 4.2 volt Filament	Π Output Pentode	I 1st type	Л Loctal base

## TRANSMITTING TUBES

### FIRST SYMBOL:

- Γ — Transmitting or power amplifier triode
- ΓY — Short-wave transmitting tube
- BΓ — Gas-filled rectifier

### SECOND SYMBOL:

Two or three figures indicating the ordinal of the tube type.

## THYRATRON

### FIRST SYMBOL:

- TP — Thyatron

### SECOND SYMBOL:

Fraction — The number of numerator is indicating average value of anode current in amperes, and the denominator is indicating peak inverse anode voltage in kilo-volts.

## LIST OF SYMBOLS FOR ELECTRODES

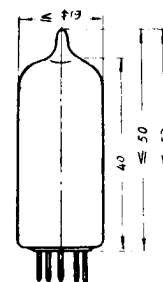
- a — Anode
- k — Cathode
- g — Grid ( $g_1$  — Grid No. 1,  $g_2$  — Grid No. 2, etc.)
- h — Heater
- f — Filament
- $f_+$  — Filament positive
- $f_-$  — Filament negative
- is — Internal shield
- t — Fluorescent screen or Target
- NC — No connection to pin

# HEPTODE

# 1A2Π

## DESCRIPTION

The miniature tube PEKING 1A2Π is a heptode with directly heated oxide filament designed for use as a mixer-oscillator in battery operated receivers, and having a low filament and h.t. consumption.



## FILAMENT

Filament voltage	$V_f$	1.2	V
Filament current	$I_f$	30	mA

## OPERATING CHARACTERISTICS

Anode voltage	$V_a$	60	V
Grids No. 2 & No. 4 voltage	$V_{g_2 + g_4}$	45	V
Grid No. 3 voltage	$V_{g_3}$	0	V
Grid No. 1 circuit resistance	$R_{g_1}$	51	K
R.M.S. grid No. 1 voltage	$V_{g_1 \sim}$	8	V
Anode current	$I_a$	0.7	mA
Grids No. 2 & No. 4 current	$I_{g_2 + g_4}$	1.1	mA
Grid No. 1 current	$I_{g_1}$	130	$\mu A$
Conversion transconductance	$S_c$	0.24	mA/V
Oscillation transconductance	$S_o$	0.82	mA/V

PEKING ELECTRON TUBES



# 1A2Π

# HEPTODE

## MAXIMUM RATINGS

Filament voltage	$V_f$	0.9—1.4	V
Anode voltage	$V_a \text{ max}$	90	V
Grids No. 2 & No. 4 voltage	$V_{g_2 + g_4 \text{ max}}$	75	V
Cathode current	$I_k \text{ max}$	3	mA
Anode dissipation	$W_a \text{ max}$	0.3	W

## CAPACITANCES

Signal input	$C_i (g_3)$	5.1	pF
Mixer output	$C_o$	6.3	pF
Oscillator input	$C_i (g_1)$	0.95	pF
Oscillator output	$C_o (g_2 + g_4)$	7.3	pF
Grid No. 3 to anode	$C_{g_3/a}$	<0.6	pF
Grid No. 1 to Grid No. 3	$C_{g_1/g_3}$	0.14	pF

Base: Miniature 7 pin

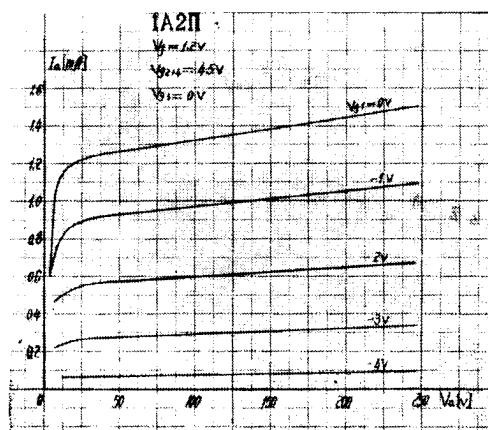
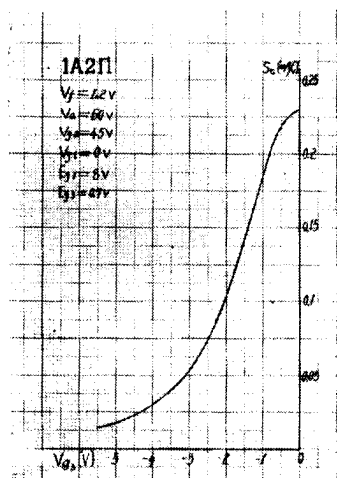
Weight: 10 g. (approx.)

Mounting: Any

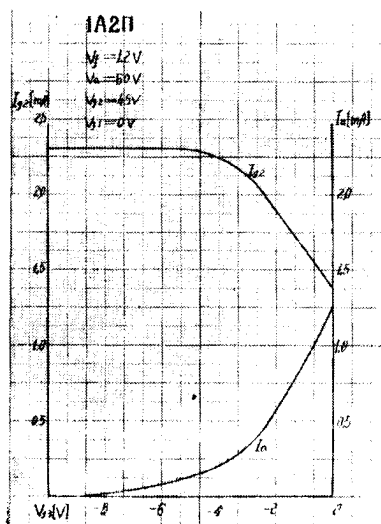
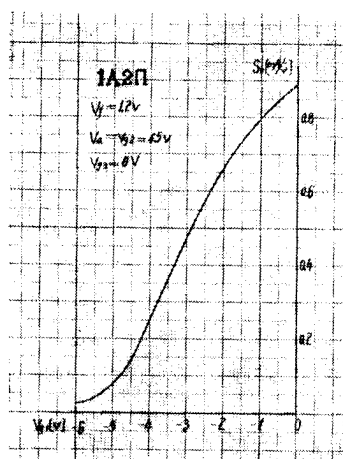


## PEKING ELECTRON TUBES

# 1A2Π



# 1A2Π



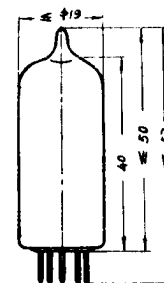
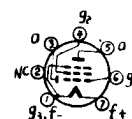
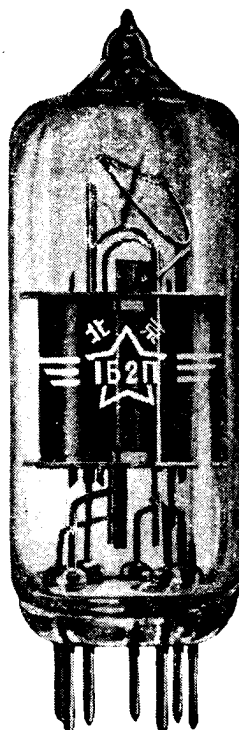


# DIODE-PENTODE

# 1Б2П

## DESCRIPTION

The miniature tube PEKING 1Б2П is a diode-pentode with directly heated oxide filament designed for use as a detector and a.f. amplifier in battery operated receives, and having a low filament and h.t. consumption.



## FILAMENT

Filament voltage	$V_f$	1.2	V
Filament current	$I_f$	30	mA

## CHARACTERISTICS

### Pentode section

Anode voltage	$V_a$	60	V
Grid No. 2 voltage	$V_{g_2}$	45	V
Grid No. 1 voltage	$V_{g_1}$	0	V
Anode current	$I_a$	0.9	mA
Grid No. 2 current	$I_{g_2}$	0.18	mA
Transconductance	$S$	0.55	mA/V
Internal resistance	$R_i$	1	MΩ

### Diode section

Anode voltage	$V_d$	1.2	V
Anode Load resistor	$R_l$	1	K
Anode current	$I_d$	$\geq 7$	$\mu A$

PEKING ELECTRON TUBES



1Б2П

DIODE-PENTODE

**MAXIMUM RATINGS**

Filament voltage	$V_f$	0.9—1.4	V
Anode voltage	$V_a \text{ max}$	90	V
Grid No. 2 voltage	$V_{g_2} \text{ max}$	75	V
Cathode current	$I_k \text{ max}$	2	mA
Anode dissipation	$W_a \text{ max}$	0.15	W

**CAPACITANCES**

Pentode section

Input	$C_i$	1.85	pF
Output	$C_o$	2.1	pF
Grid No. 1 to anode	$C_{g_1/a}$	0.27	pF

Diode section

Anode to cathode	$C_{a/k}$	0.3	pF
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**Base:** Miniature 7 pin

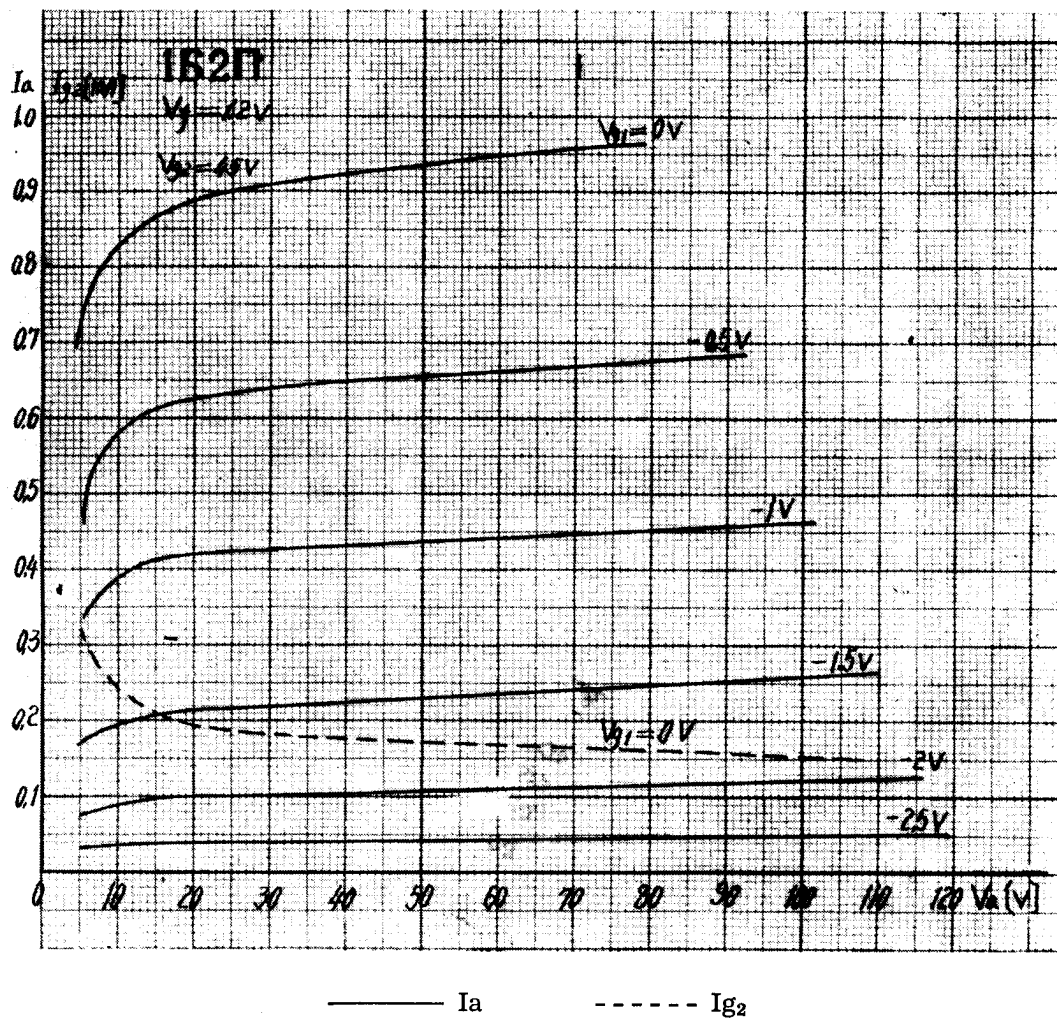
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**Mounting:** Any

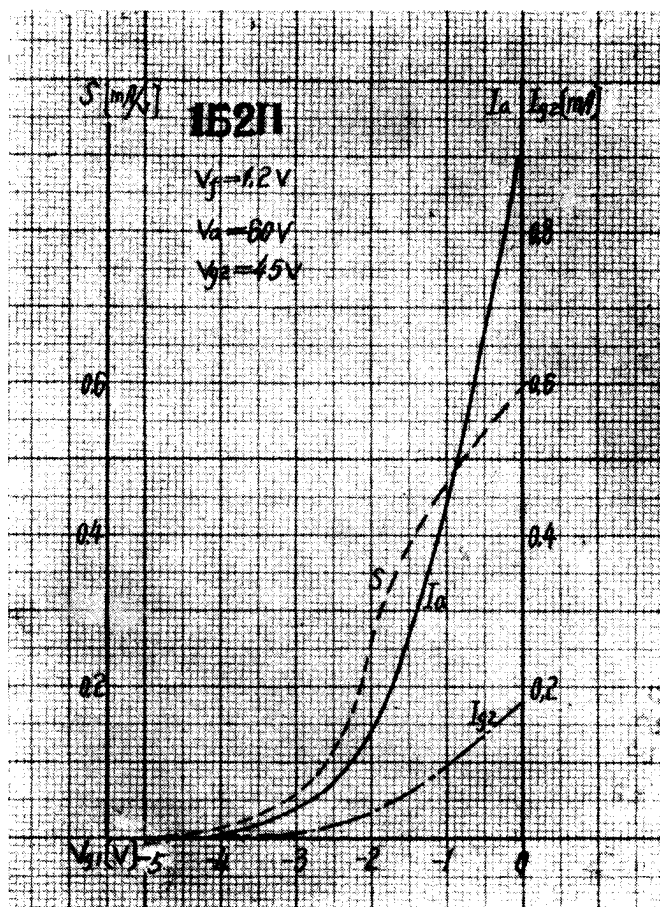
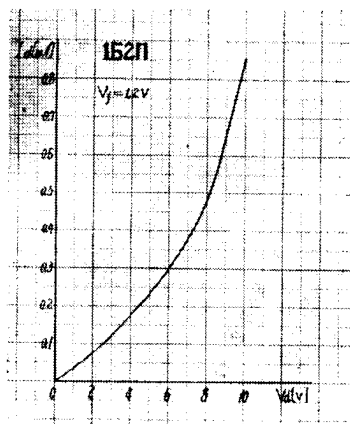


PEKING ELECTRON TUBES

1Б2П



1Б2П

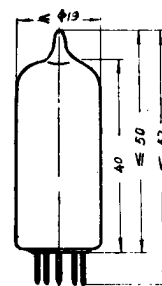
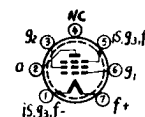


# R. F. PENTODE

# 1K2Π

## DESCRIPTION

The miniature tube PEKING 1K2Π is a remote-cutoff pentode with directly heated oxide filament designed for use as h.f. or i.f. amplifier in battery operated receivers, and having a low filament and h.t. consumption.



## FILAMENT

Filament voltage	$V_f$	1.2	V
Filament current	$I_f$	30	mA

## CHARACTERISTICS

Anode voltage	$V_a$	60	V
Grid No. 2 voltage	$V_{g_2}$	45	V
Grid No. 1 voltage	$V_{g_1}$	0	V
Anode current	$I_a$	1.35	mA
Grid No. 2 current	$I_{g_2}$	0.35	mA
Transconductance	$S$	0.7	mA/V
Internal resistance	$R_i$	1.5	MΩ

PEKING ELECTRON TUBES



1K2Π

R. F. PENTODE

**MAXIMUM RATINGS**

Filament voltage	$V_f$	0.9—1.4	V
Anode voltage	$V_a \text{ max}$	90	V
Grid No. 2 voltage	$V_{g_2} \text{ max}$	75	V
Cathode current	$I_k \text{ max}$	3.5	mA
Anode dissipation	$W_a \text{ max}$	0.3	W

**CAPACITANCES**

Input	$C_i$	3.0	pF
Output	$C_o$	4.9	pF
Grid No. 1 to anode	$C_{g_1/a}$	$\geq 0.01$	pF

**Base:** Miniature 7 pin

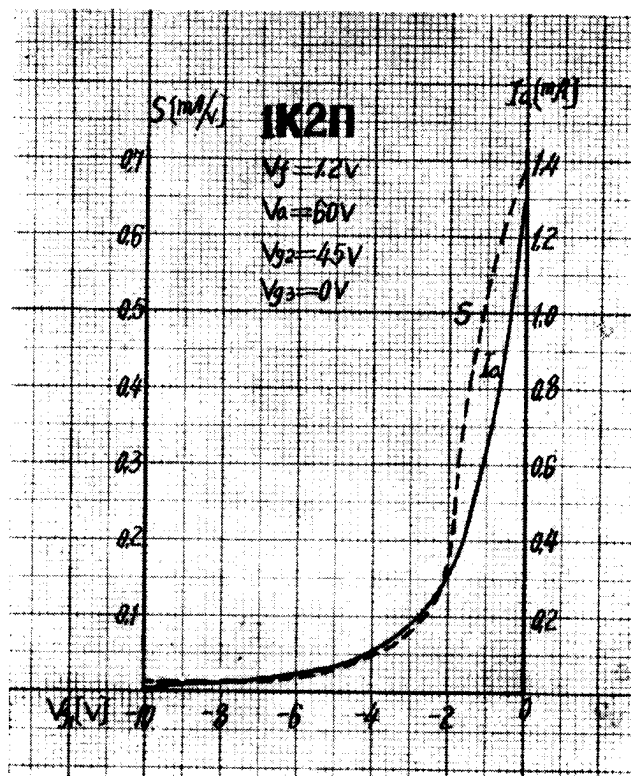
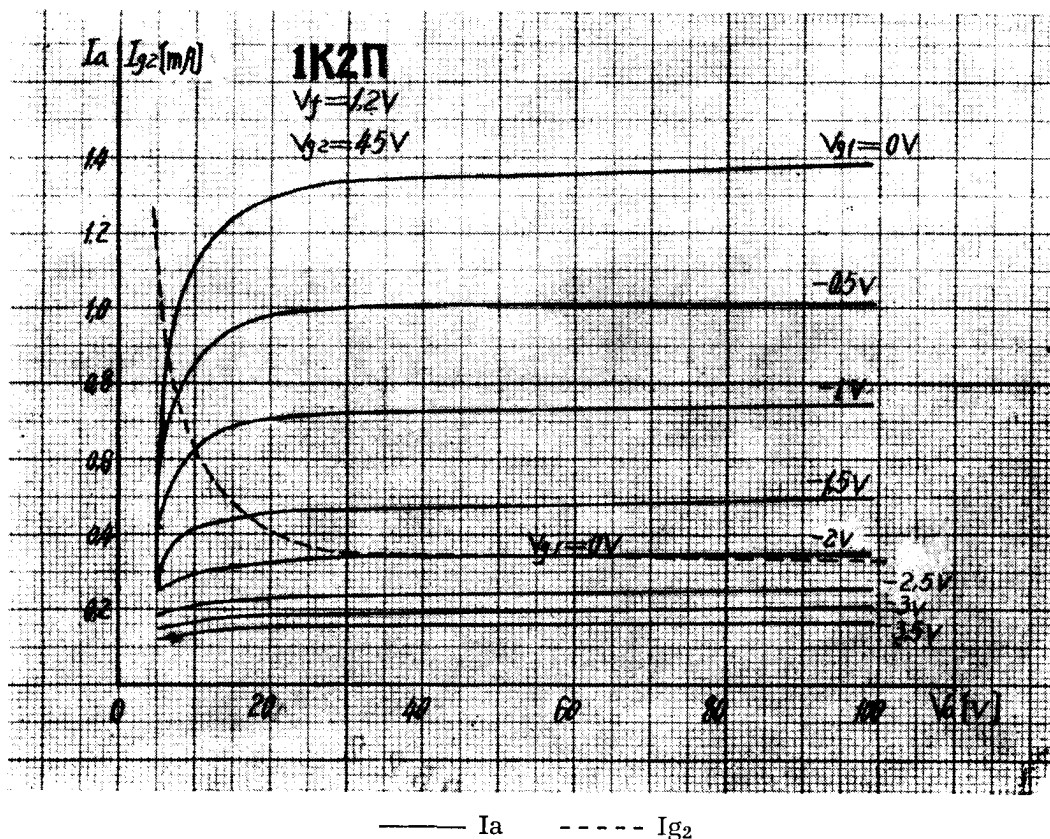
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**Mounting:** Any.

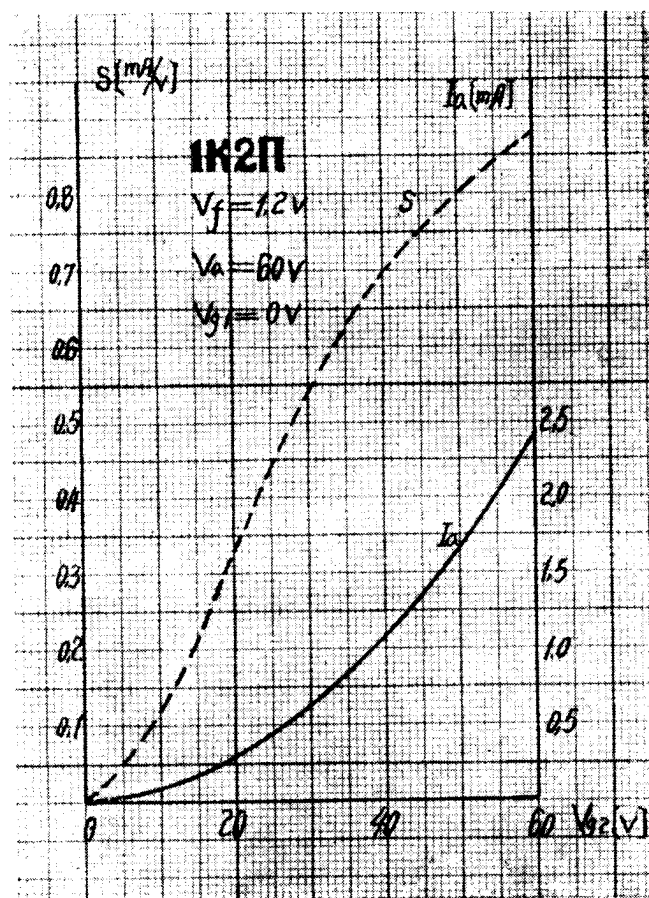


PEKING ELECTRON TUBES

# 1K2П



1K2П



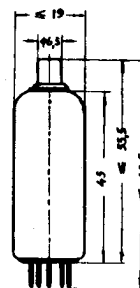
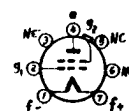
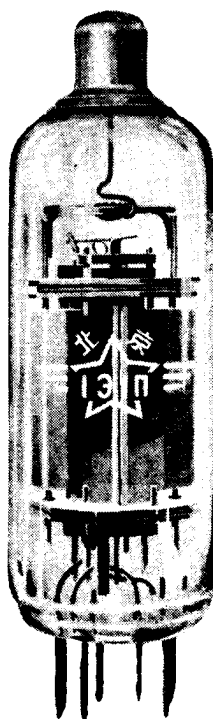


# TETRODE

1Э1П

## DESCRIPTION

The miniature tube PEKING 1Э1П is a tetrode with directly heated oxide filament for use in electrostatic measurements.



## FILAMENT

Filament voltage	$V_f$	1	V
Filament current	$I_f$	46	mA

## CHARACTERISTICS

Anode voltage	$V_a$	6	V
Grid No. 1 voltage	$V_{g_1}$	4	V
Grid No. 2 voltage	$V_{g_2}$	-3	V
Anode current	$I_a$	100	$\mu A$
Grid No. 1 current	$I_{g_1}$	400	$\mu A$
Grid No. 2 current	$I_{g_2}$	$7 \times 10^{-8}$	$\mu A$
Transconductance	$S$	50	$\mu A/V$
Amplification factor	$\mu$	1.3	

**Base:** Miniature 7 pin  
**Weight:** 15 g. (approx.)  
**Mounting:** Any

PEKING ELECTRON TUBES





2Ж27Л

R. F. PENTODE

**MAXIMUM RATINGS**

Filament voltage	$V_f$	2.0—2.4	V
Anode voltage	$V_a \text{ max}$	200	V
Grid No. 2 voltage	$V_{g_2} \text{ max}$	120	V
Anode dissipation	$W_a \text{ max}$	1.0	W
Grid No. 2 dissipation	$W_{g_2} \text{ max}$	0.3	W
Cathode current	$I_k \text{ max}$	5	mA

**CAPACITANCES**

Input	$C_i$	5.3	pF
Output	$C_o$	4.9	pF
Grid No. 1 to anode	$C_{g_1/a}$	<0.015	pF
Anode to cathode	$C_{a/k}$	<0.01	pF

**Base:** Loctal 8 pin

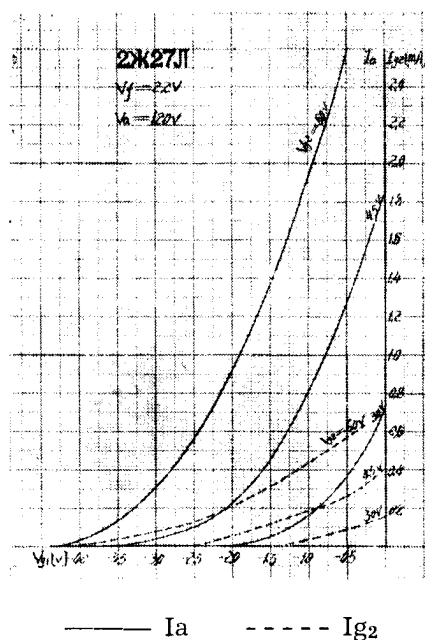
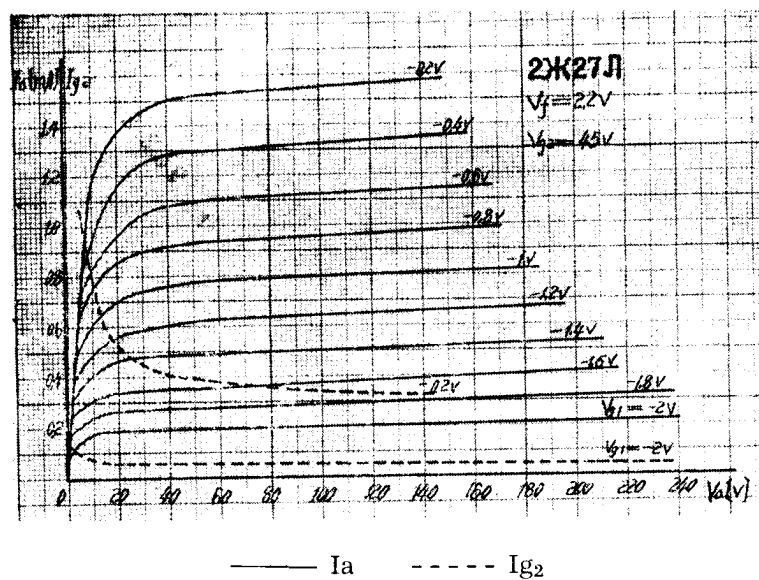
**Weight:** 45 g. max

**Mounting:** Any

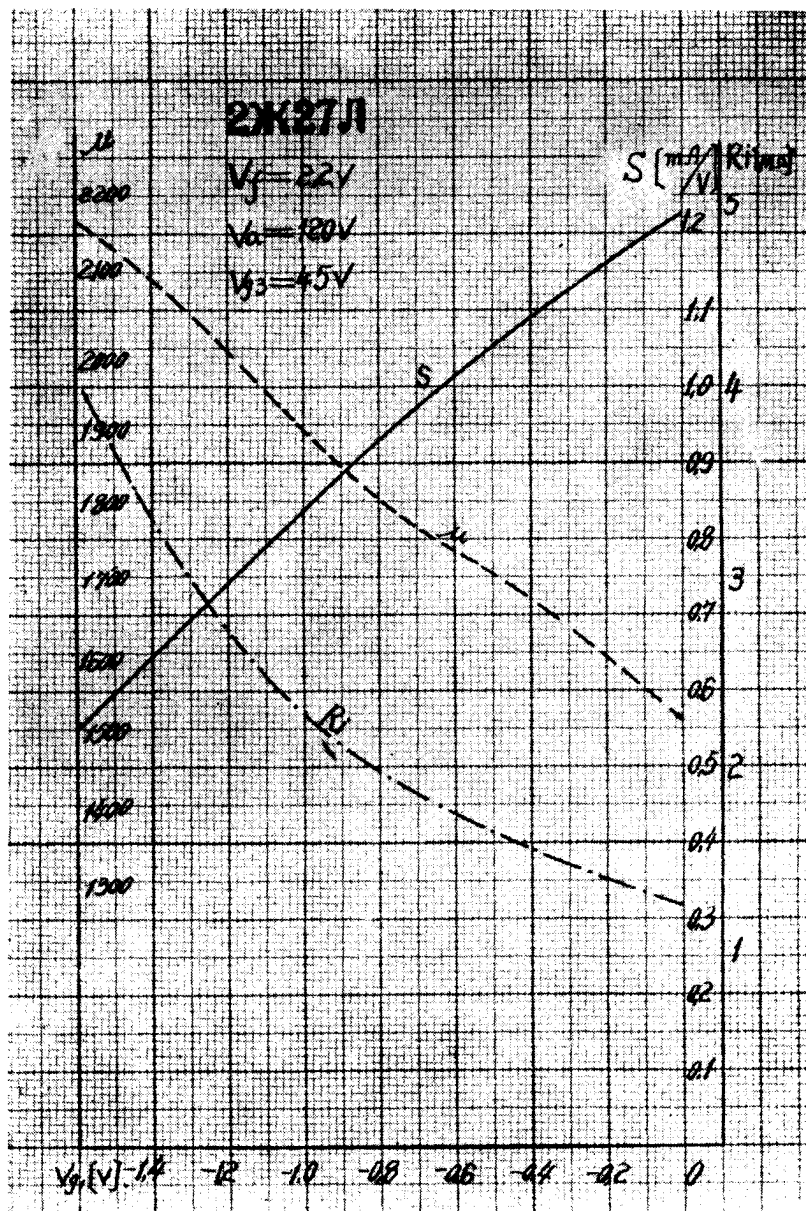


PEKING ELECTRON TUBES

# 2Ж27Л



2Ж27Л

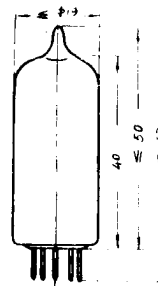
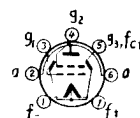


# OUTPUT TETRODE

# 2Π2Π

## DESCRIPTION

The miniature tube PEKING 2Π2Π is a output tetrode with centre-tapped directly heated oxide filament designed for use as an output power amplifier in battery operated equipment, and having a low filament and h.t. consumption.



## FILAMENT

Filament voltage

$V_f$

Series Parallel

2.4 1.2 V

Filament current

$I_f$

30 60 mA

## CHARACTERISTICS

(Parallel filament connection)

Anode voltage

$V_a$

60 V

Grid No. 2 voltage

$V_{g_2}$

60 V

Grid No. 1 voltage

$V_{g_1}$

-3.5 V

Anode current

$I_a$

3.5 mA

Grid No. 2 current

$I_{g_2}$

0.8 mA

Transconductance

$S$

1.1 mA/V

PEKING ELECTRON TUBES



# 2Π2Π

# OUTPUT TETRODE

## OPERATING CONDITIONS

(As single tube class A amplifier)

Anode voltage	V <sub>a</sub>	60	V
Grid No. 2 voltage	V <sub>g<sub>2</sub></sub>	60	V
Grid No. 1 voltage	V <sub>g<sub>1</sub></sub>	-3.5	V
R.M.S. input voltage	V <sub>g<sub>12</sub></sub>	2.5	V
Anode load resistor	R <sub>l</sub>	20	KΩ
Anode current	I <sub>a</sub>	3.5	mA
Grid No. 2 current	I <sub>g<sub>2</sub></sub>	0.8	mA
Power output	W <sub>o</sub>	7.5	W
Total harmonic distortion	D <sub>tot</sub>	10	%

## MAXIMUM RATINGS

		series	Parallel
Filament voltage	V <sub>f</sub>	1.8—2.8	0.9—1.4 V
Anode voltage	V <sub>a</sub> max	90	V
Grid No. 2 voltage	V <sub>g<sub>2</sub></sub> max	90	V
Anode dissipation	W <sub>a</sub> max	0.4	W
Cathode current	I <sub>k</sub> max	7	mA
Grid No. 1 circuit resistor	R <sub>g<sub>1</sub></sub> max	0.5	MΩ

## CAPACITANCES

Input	C <sub>i</sub>	3.7	pF
output	C <sub>o</sub>	3.2	pF
Grid No. 1 to Anode	C <sub>g<sub>1</sub>/a</sub>	0.4	pF

**Base:** Miniature 7 pin

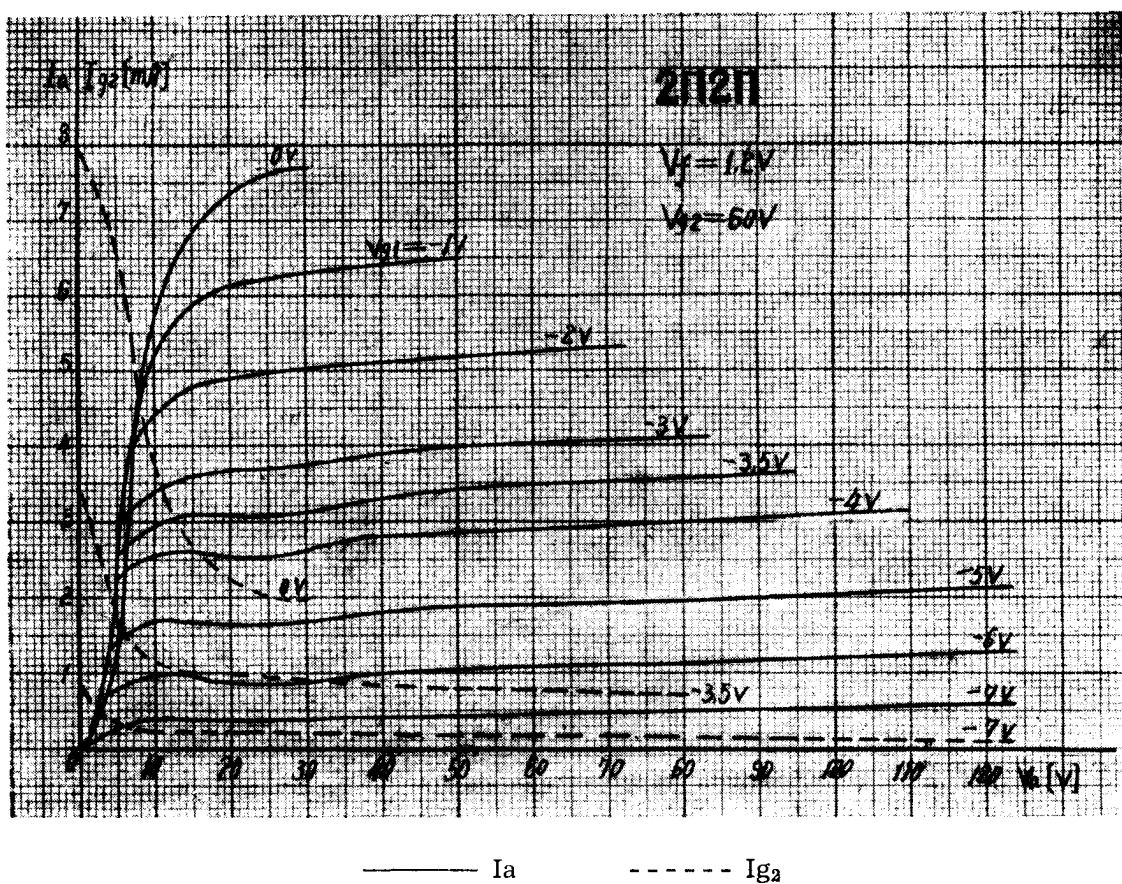
**Weight:** 10 g. (approx.)

**Mounting:** Any



## PEKING ELECTRON TUBES

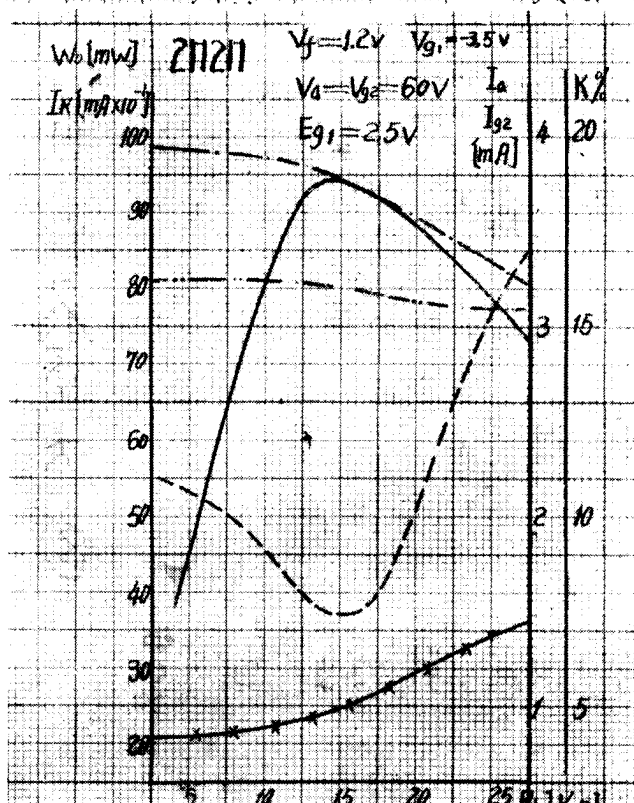
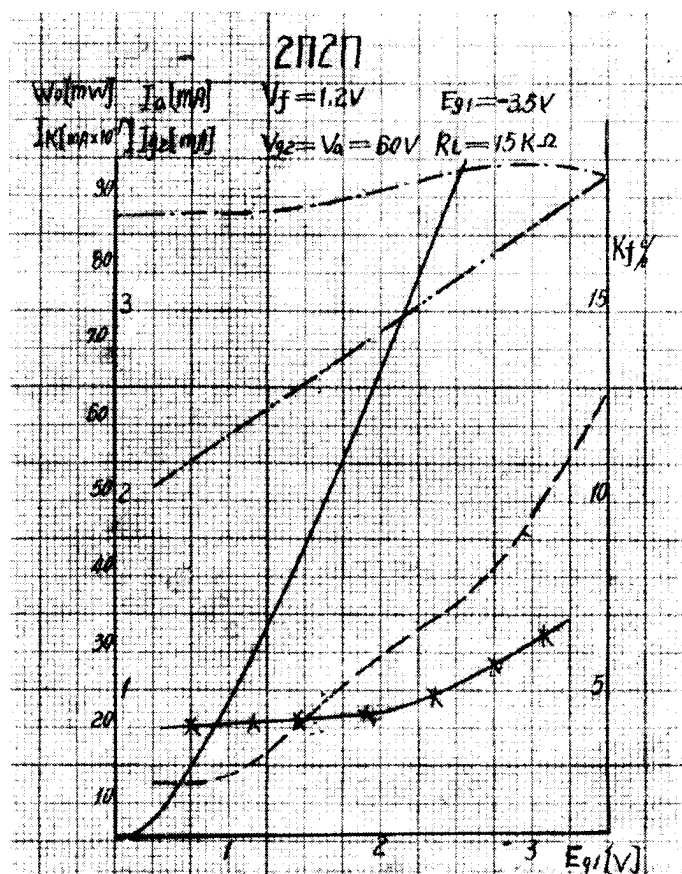
2П2П





2П2П

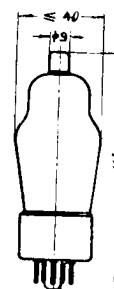
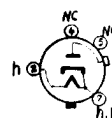
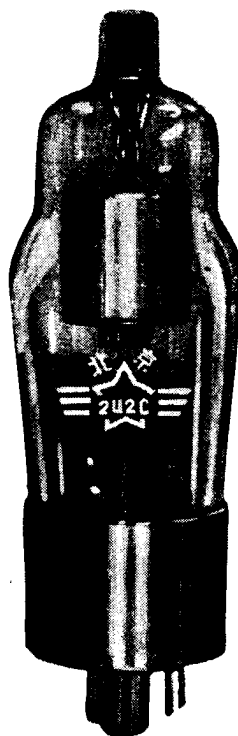
—————  $W_o$   
 - - - - -  $K_f$   
 — · — · —  $I_a$   
 — · — · —  $I_k$  (peak)  
 — × — × —  $I_{g2}$



# HALF-WAVE RECTIFIER 2U2C

## DESCRIPTION

The octal type PEKING 2U2C is a high vacuum half-wave rectifier with indirectly heated oxide cathode, designed for use as high-tension power supply in a.c. main operated equipment.



## HEATER

Heater voltage	$V_h$	2.5	V
Heater current	$I_h$	1.75	A

## CHARACTERISTICS

Anode voltage	$V_a$	200	V
Anode current	$I_a$	47.5	mA

## OPERATING CONDITIONS

R.M.S. anode supply voltage	$V_{a\sim}$	4500	V
Load resistor	$R_l$	0.6	$M\Omega$
Filter capacitor	$C_f$	0.06	$\mu F$
D.C. output current	$I_l$	> 6.8	mA

## MAXIMUM RATINGS

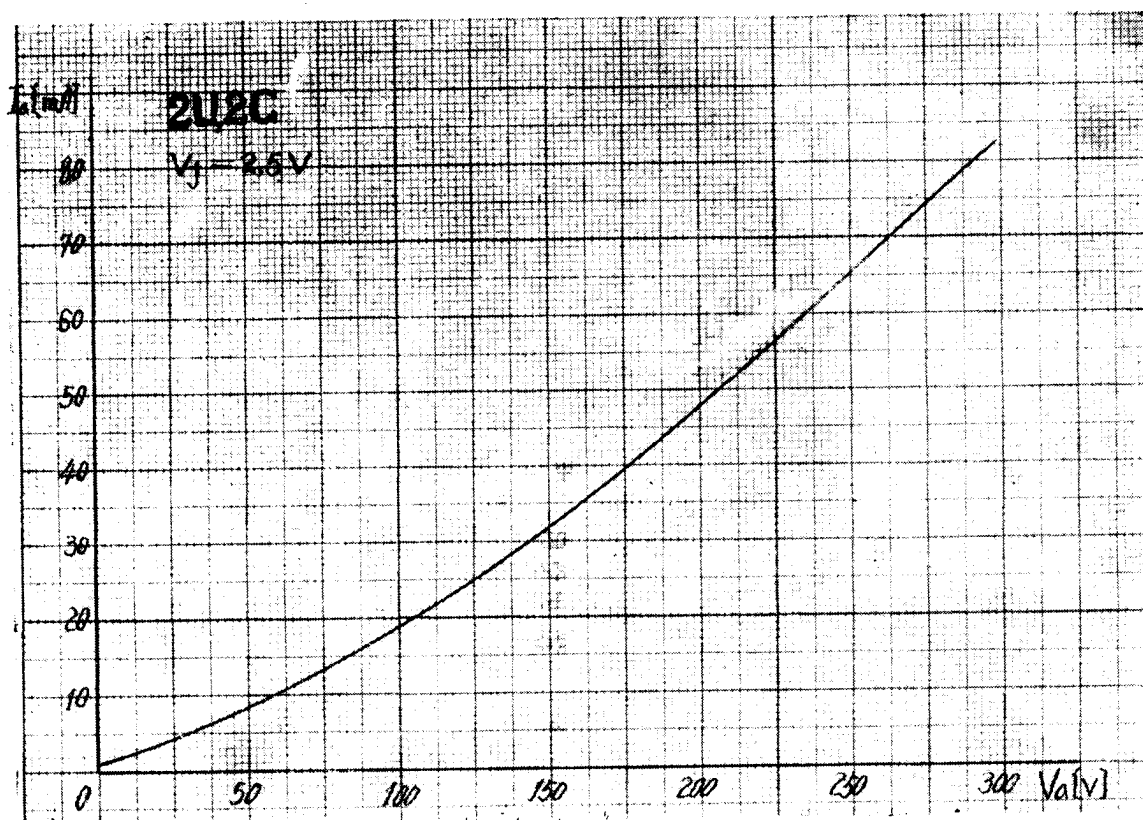
Heater voltage	$V_h$	2.25—2.75	V
Peak inverse anode voltage	$V_{pk\ max}$	12.5	K.V.
Peak anode current	$I_{pk\ max}$	100	mA

**Base:** Octal  
**Weight:** 55 g. max  
**Mounting:** Vertical

PEKING ELECTRON TUBES



2U2C

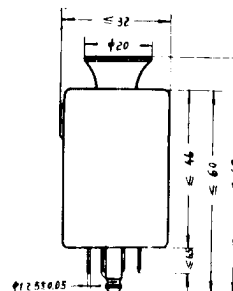
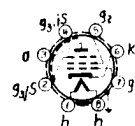
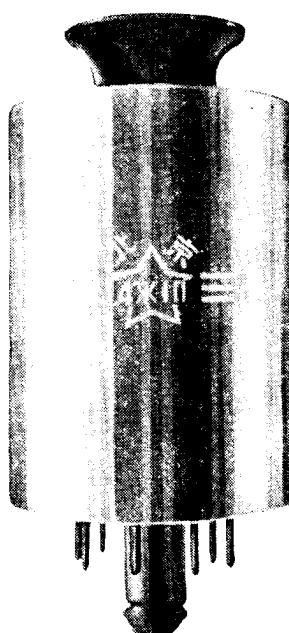


# R. F. PENTODE

4Ж1Л

## DESCRIPTION

The loctal type PEKING 4Ж1Л is a sharp-cutoff pentode with indirectly heated oxide cathode, primarily intended for use as h.f. amplifier or low oscillator drive and is suitable for use at 200 Mc/s.



## HEATER

Heater voltage	$V_h$	4.2	V
Heater current	$I_h$	225	mA

## CHARACTERISTICS

Anode voltage	$V_a$	150	V
Grid No. 2 voltage	$V_{g_2}$	75	V
Grid No. 1 voltage	$V_{g_1}$	-2.35	V
Grid No. 3 voltage	$V_{g_3}$	0	V
Anode current	$I_a$	2.0	mA
Grid No. 2 current	$I_{g_2}$	<0.7	mA
Transconductance	$S$	1.5	mA/V
Internal resistance	$R_i$	>1.0	MΩ
Amplification factor (triode connection at 125V/2.5mA)	$\mu$	20	

PEKING ELECTRON TUBES



4Ж1Л

R. F. PENTODE

# OPERATING CONDITIONS

As single tube class A amplifier

H.T. line voltage	$V_{h.t.}$	250	V
Anode load resistor	$R_l$	3.5	$K\Omega$
Grid No. 2 circuit resistor	$R_{g_2}$	20	$K\Omega$
Cathode bias resistor	$R_k$	500	$\Omega$
R.M.S. grid No. 1 voltage	$V_{g_1} \sim$	2.8	V
Anode current	$I_a$		mA
Grid No. 2 current	$I_{g_2}$		mA
Power output	$W_o$	> 0.5	W

# MAXIMUM RATINGS

Heate voltage	$V_h$	3.6—4.8	V
Anode voltage	$V_a \text{ max}$	250	V
Grid No. 2 voltage	$V_{g_2} \text{ max}$	225	V
Anode dissipation	$W_a \text{ max}$	2	W
Grid No. 2 dissipation	$W_{g_2} \text{ max}$	0.7	W
Cathode current	$I_k \text{ max}$	11	mA
Heater-cathode voltage	$V_{hk} \text{ max}$	100	V

# CAPACITANCES

Input	$C_i$	4.0	pF
Outvut	$C_o$	4.2	pF
Grid No. 1 to anode	$C_{g_1/a}$	<0.007	pF

**Base:** Loctal 8 pin

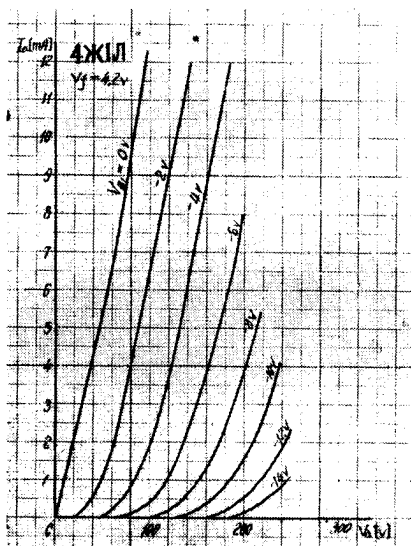
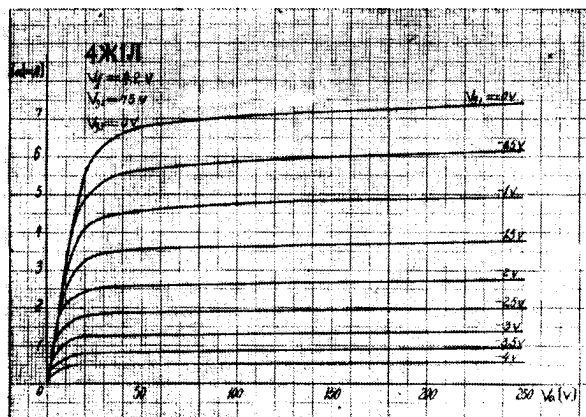
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**Mounting:** Any

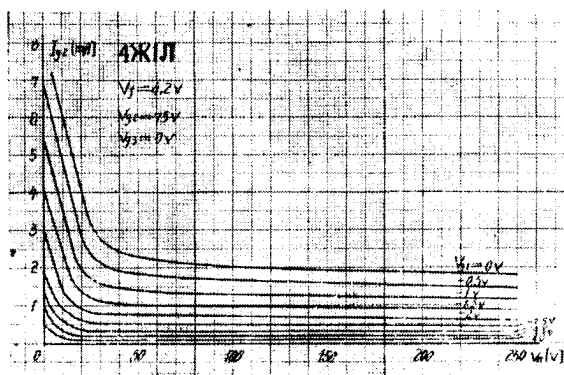
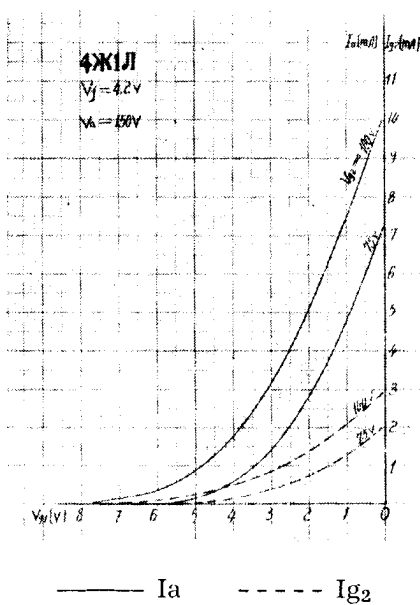


PEKING ELECTRON TUBES

4Ж1Л



4Ж1Л

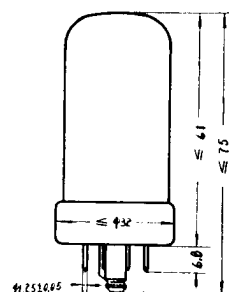
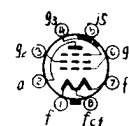


## OUTPUT PENTODE

4П1Л

## DESCRIPTION

The loctal type PEKING 4П1Л is a output pentode with center-tapped directly heated oxide filament, primarily intended for use as h.f. power amplifier or oscillator drive and is suitable for use at 200 MC/S.



## FILAMENT

Filament voltage  
Filament current

$V_f$   
 $I_f$

Series Parallel

Series	Parallel	V	mA
4.2	2.1	V	
325	650		mA

## CHARACTERISTICS

Anode voltage  
Grid No. 2 voltage  
Grid No. 3 voltage  
Grid No. 1 voltage  
Anode current  
Grid No. 2 current  
Transconductance  
Anode current (at  $V_{g1} = -18$  V)  
Amplification factor (triode connection at 125V & 175 V/35mA)

$V_a$   
 $V_{g2}$   
 $V_{g3}$   
 $V_{g1}$   
 $I_a$   
 $I_{g2}$   
 $S$   
 $I_{ao}$   
 $\mu$

150	V
150	V
0	V
-7	V
35	mA
6.5	mA
6	mA/V
7	mA
9.5	

PEKING ELECTRON TUBES





4Π1Л

OUTPUT PENTODE

### OPERATIONS CONDITIONS

For power amplifier

Anode voltage	Va	200	V
Grid No. 2 voltage	Vg <sub>2</sub>	150	V
Grid No. 3 voltage	Vg <sub>3</sub>	+15	V
Grid No. 1 voltage	Vg <sub>1</sub>	-20	V
R.M.S. grid No. 1 voltage	Vg <sub>1</sub> ~	18	V
Anode current	Ia	50	mA
Grid No. 2 current	Ig <sub>2</sub>	10	mA
Grid No. 1 current	Ig <sub>1</sub>	≈ 1	mA
Power output	Wo	4.2	W
Frequency	f	12	MC/S

### MAXIMUM RATINGS

		Series	Parallel
Filament voltage	Vf	3.9—4.7	1.95—2.35 V
Anode voltage	Va max	250	V
Grid No. 2 voltage	Vg <sub>2</sub> max	250	V
Anode dissipation	Pa max	7.5	W
Grid No. 2 dissipation	Pg <sub>2</sub> max	1.5	W
Cathode current	Ik max	50	mA
Grid No. 1 circuit resistor	Rg <sub>1</sub> max	0.5	MΩ
Grid No. 3 circuit resistor	Rg <sub>3</sub> max	0.1	MΩ

### CAPACITANCES

Input	Ci	8.5	pF
Output	Co	9.4	pF
Grid No. 1 to anode	Cg <sub>1</sub> a	< 0.1	pF

**Base:** Loctal 8 pin

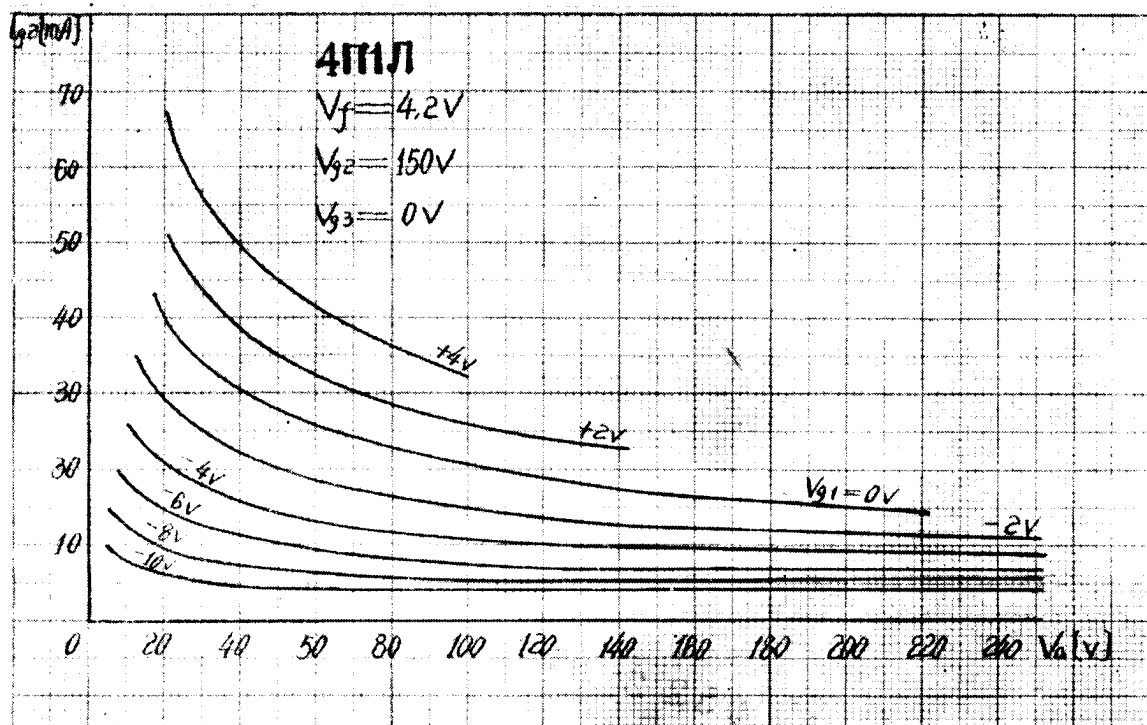
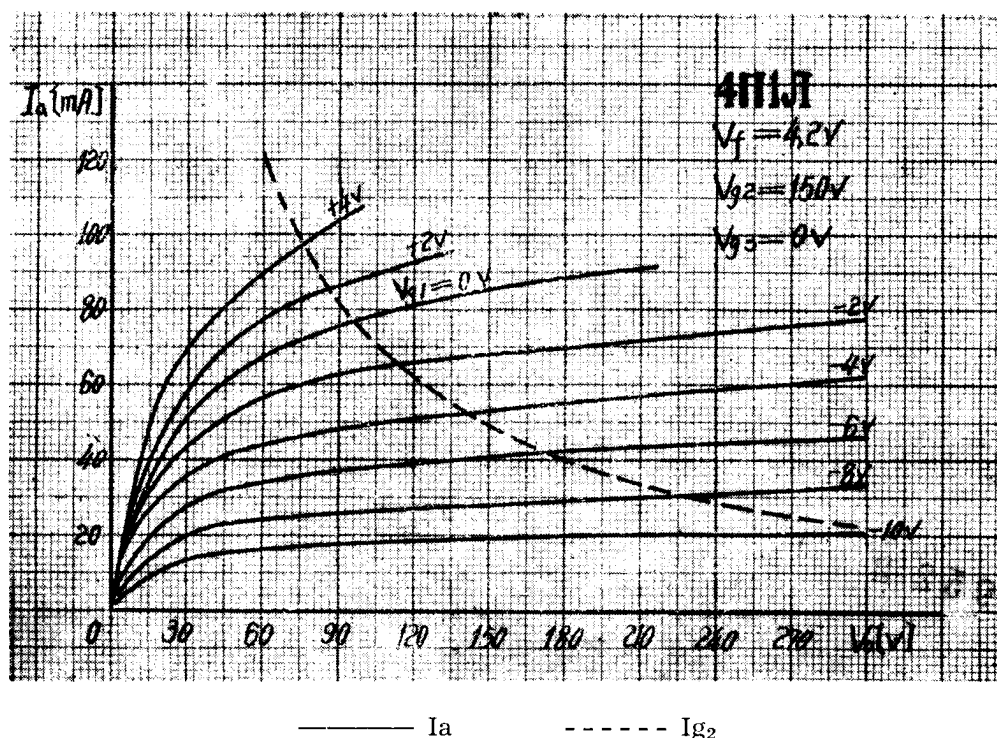
**Weight:** 30 g. max

**Mounting:** Any

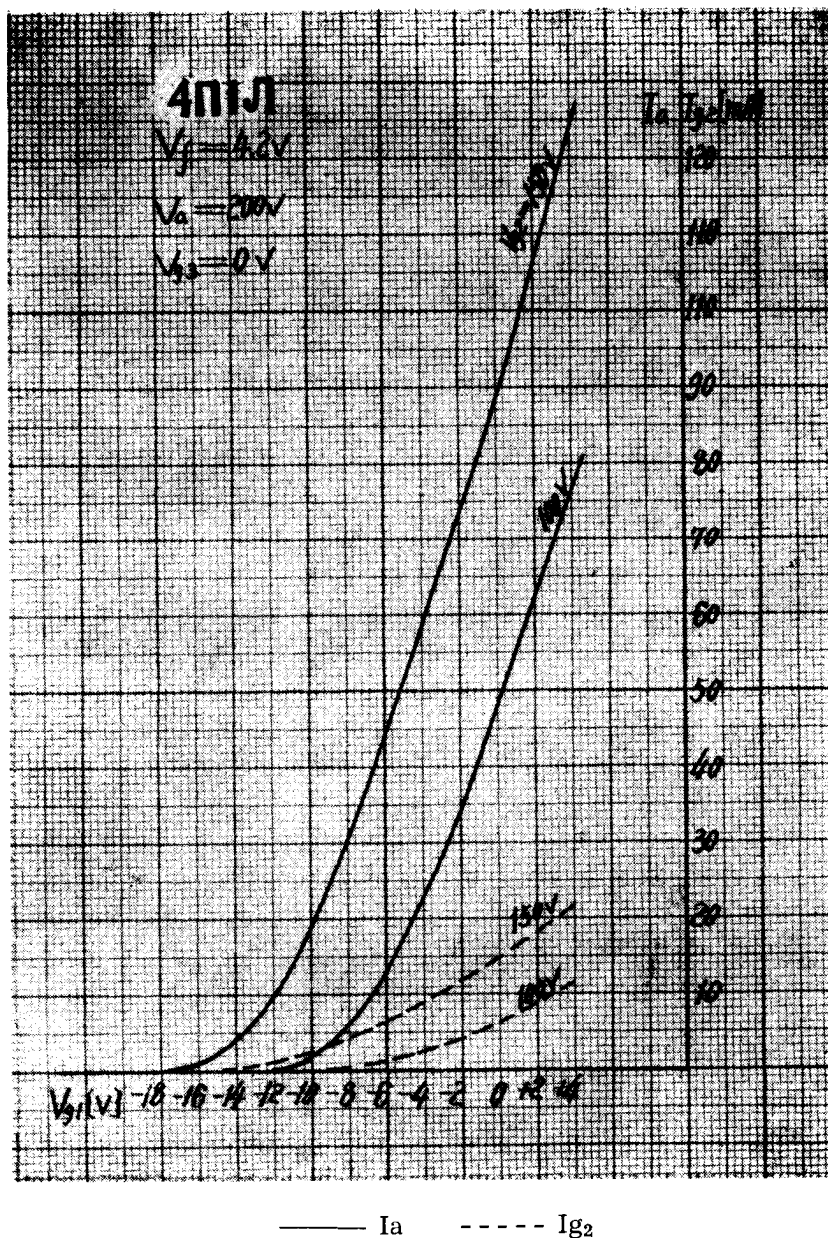


PEKING ELECTRON TUBES

4П1Л



4П1Л

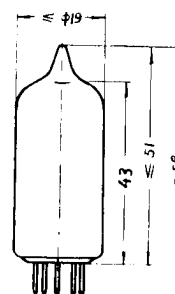
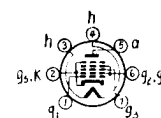


## HEPTODE

6A2Π

## DESCRIPTION

The miniature tube PEKING 6A2Π is a heptode with indirectly heated oxide cathode designed for use as a mixer-oscillator in a.c. mains operated receivers.



## HEATER

Heater voltage	$V_h$	6.3	V
Heater current	$I_h$	300	mA

## OPERATING CHARACTERISTICS\*

Anode voltage	$V_a$	250	V
Grids No. 2 & No. 4 voltage	$V_{g_2 + g_4}$	100	V
Grid No. 3 voltage	$V_{g_3}$	-1.5	V
Grid No. 1 circuit resistance	$R_{g_1}$	20	KΩ
Anode current	$I_a$	3.0	mA
Grids No. 2 & No. 4 current	$I_{g_2 + g_4}$	7.0	mA
Grids No. 1 current	$I_{g_1}$	0.5	mA
Total cathode current	$I_k$	10.5	mA
Conversion transconductance	$S_c$	0.47	mA/V
Oscillation transconductance	$S_o$	6.0	mA/V
Internal resistance	$R_i$	1.0	MΩ

\* The characteristics shown with separate excitation correspond very closely to those obtained in a self-excited oscillator circuit operating with zero bias.

PEKING ELECTRON TUBES



# 6A2Π

# HEPTODE

## MAXIMUM RATINGS

Heater voltage	$V_h$	5.7—6.9	V
Anode voltage	$V_a \text{ max}$	330	V
Grids No. 2 & No. 4 voltage	$V_{g_2 + g_4} \text{ max}$	100	V
Grid No. 3 voltage	$V_{g_3} \text{ max}$	-50	V
Anode dissipation	$W_a \text{ max}$	1.1	W
Grids No. 2 & No. 4 dissipation	$W_{g_2 + g_3} \text{ max}$	1.1	W
Cathode current	$I_k$	14	mA
Heater-cathode voltage	$V_{hk} \text{ max}$	±100	V

## CAPACITANCES

Signal input	$C_i (g_3)$	7.2	pF
Mixer output	$C_o$	8.5	pF
Oscillator input	$C_i (g_1)$	2.8	pF
Grid No. 3 to anode	$C_{g_3/a}$	0.3	pF

**Base:** Miniature 7 pin

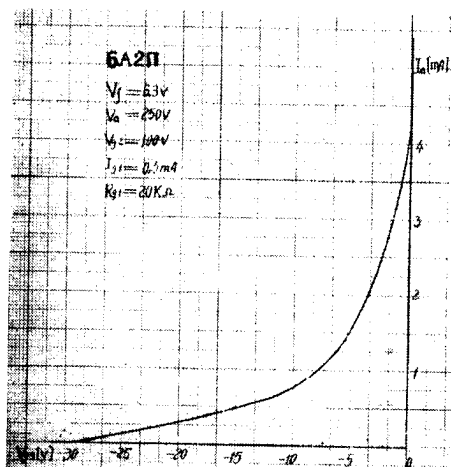
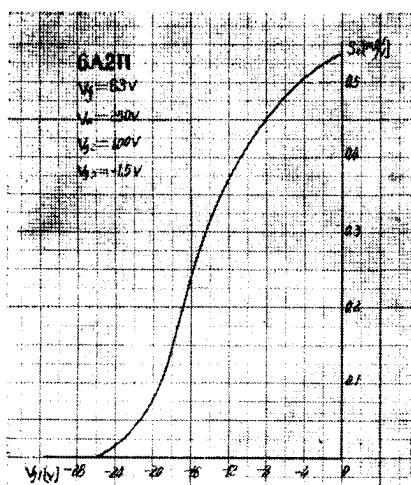
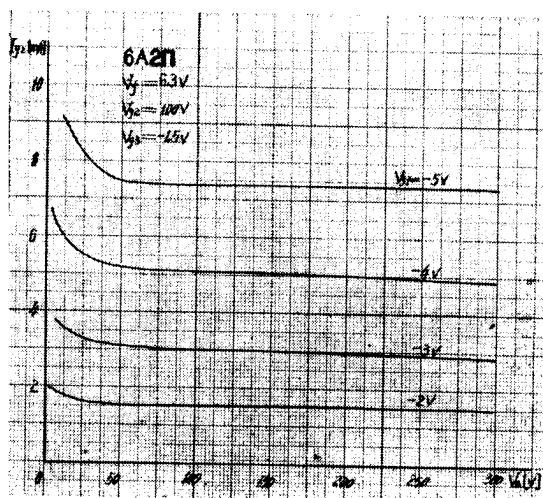
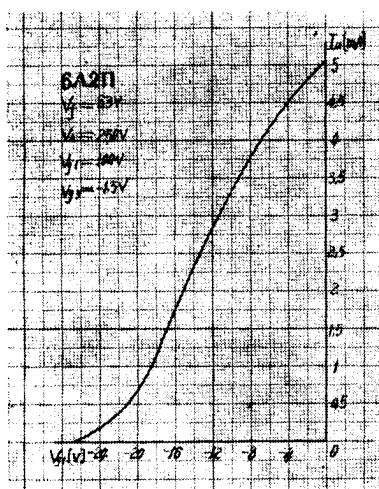
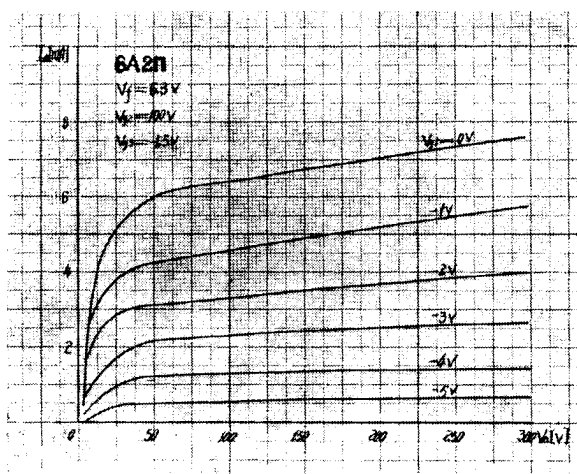
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**Mounting:** Any

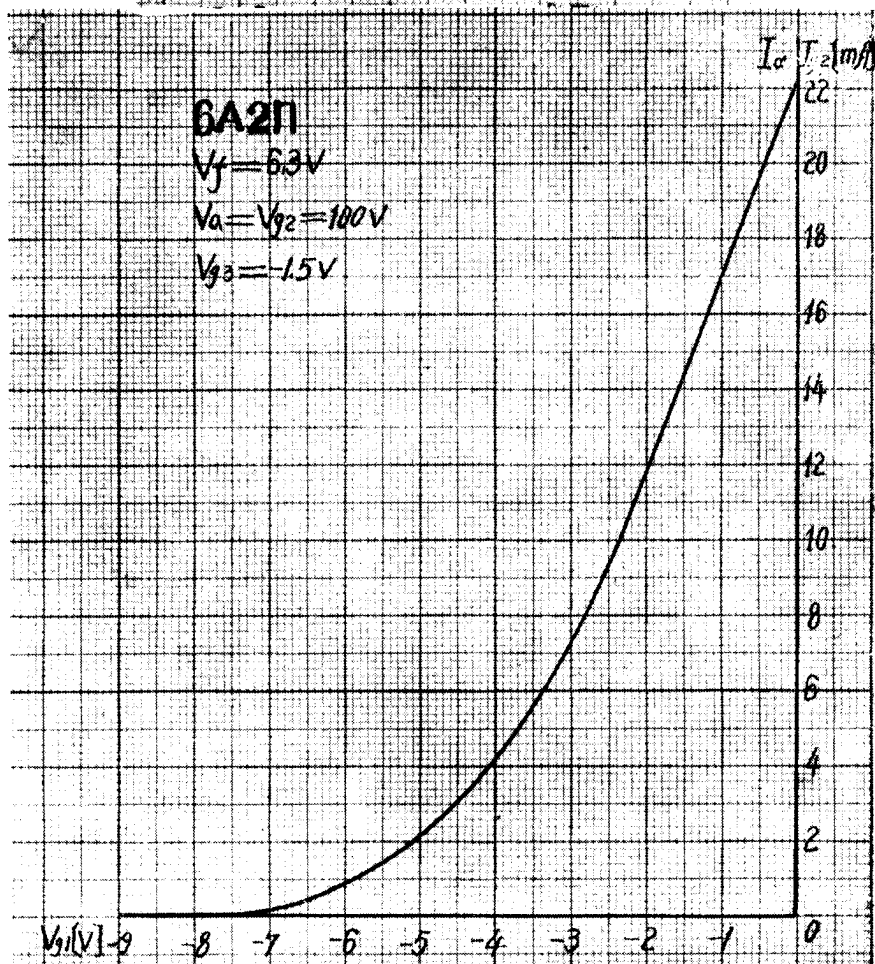
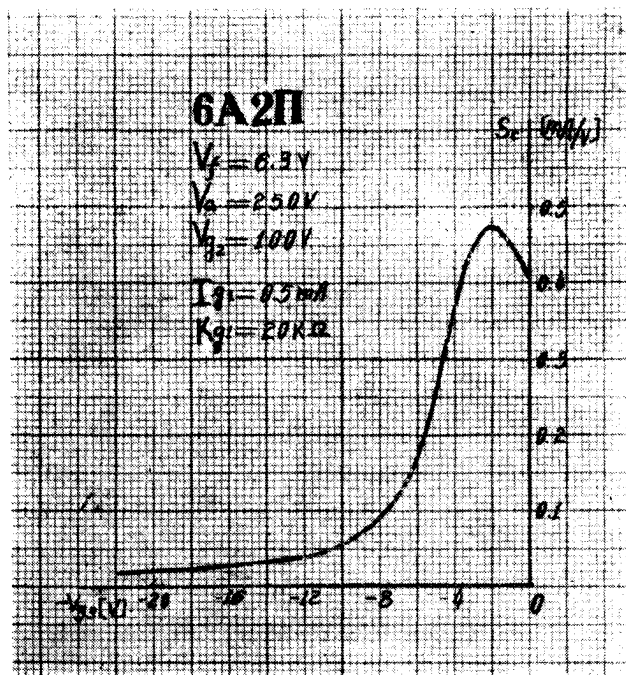


## PEKING ELECTRON TUBES

# 6A2П



# 6A2П

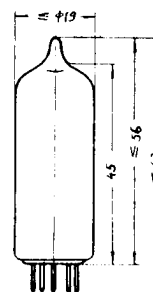
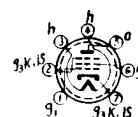


# R. F. PENTODE

# 6K4Π

## DESCRIPTION

The miniature tube PEKING 6K4Π is a remote-cutoff pentode with indirectly heated oxide cathode designed for use as h.f. or i.f. amplifier in a.c. mains operated receivers.



## HEATER

Heater voltage	$V_h$	6.3	V
Heater current	$I_h$	300	mA

## CHARACTERISTICS

Anode voltage	$V_a$	250	V
Grid No. 2 voltage	$V_{g_2}$	100	V
Cathode bias resistor	$R_k$	68	$\Omega$
Anode current	$I_a$	10	mA
Grid No. 2 current	$I_{g_2}$	$\leq 5.5$	mA
Transconductance	$S$	4.4	mA/V
Grid No. 1 Bias (Approx.) for transconductance of 40 $\mu$ A/V.	$V_{g_1}$	-20	V

PEKING ELECTRON TUBES





6K4Π

R. F. PENTODE

# MAXIMUM RATINGS

Heater voltage	$V_h$	5.7—6.9	V
Anode voltage	$V_a \text{ max}$	300	V
Grid No. 2 voltage	$V_{g_2} \text{ max}$	125	V
Anode dissipation	$W_a \text{ max}$	3.0	W
Grid No. 2 dissipation	$W_{g_2} \text{ max}$	0.6	W
Cathode current	$I_k \text{ max}$	20	mA
Grid No. 1 circuit resistor	$R_{g_1} \text{ max}$	500	$K\Omega$
Heater—cathode voltage	$V_{hk} \text{ max}$	$\pm 90$	V

# CAPACITANCES

input	$C_i$	6.0	pF
output	$C_o$	6.3	pF
Grid No. 1 to anode	$V_{g_1/a}$	$\leq 0.0045$	pF

**Base:** Miniature 7 pin

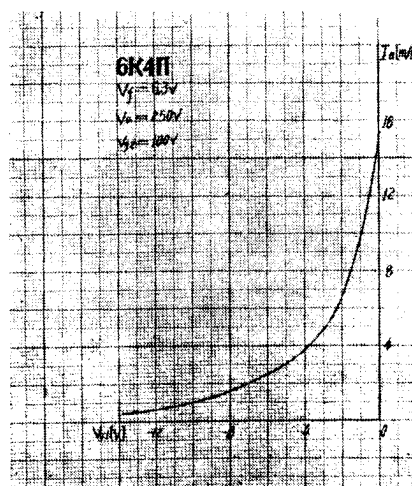
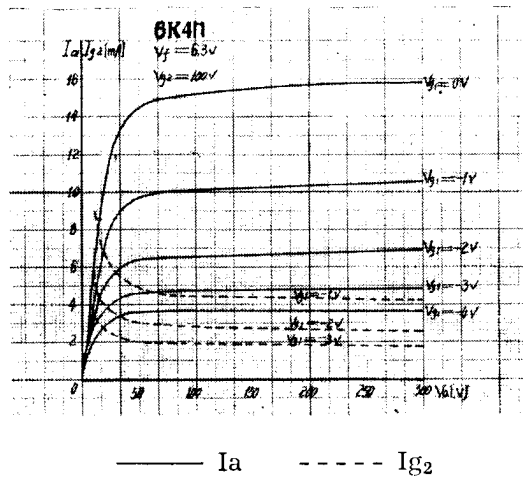
**Weight:** 13 g.

**Mounting:** Any

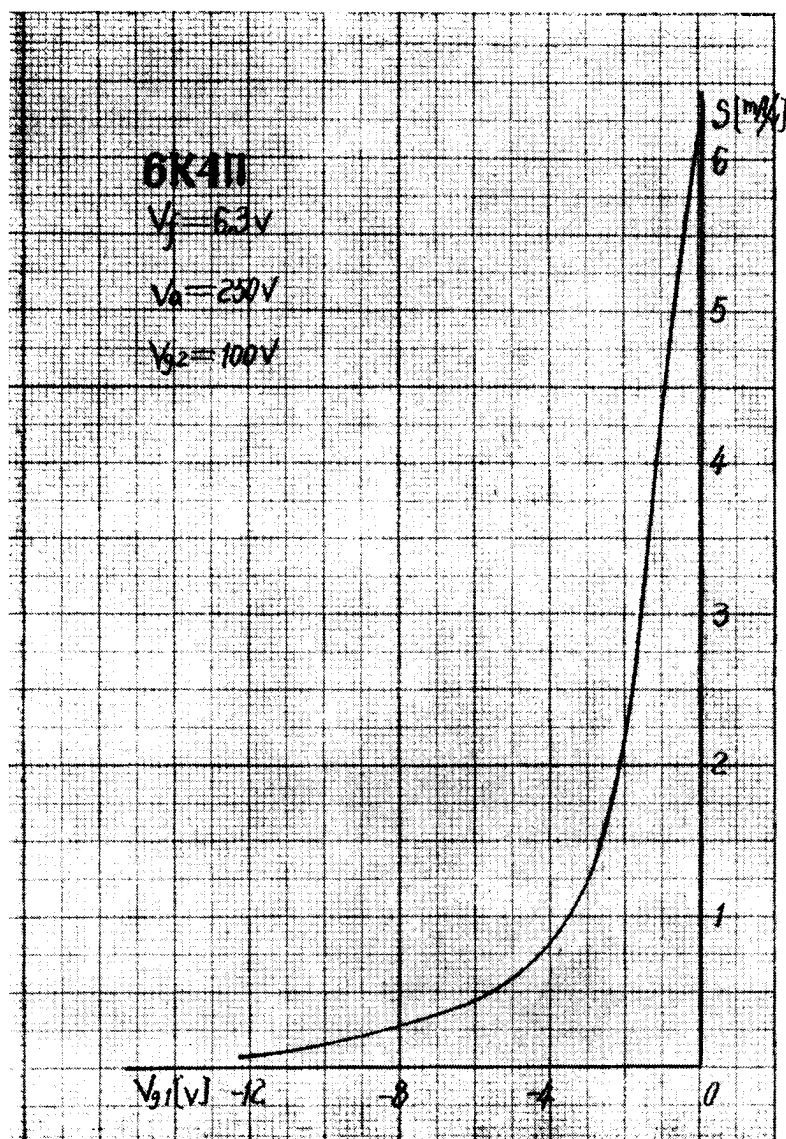


PEKING ELECTRON TUBES

6K4П



6K4Π

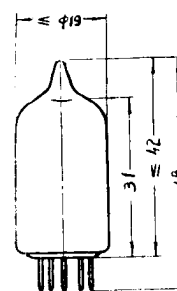
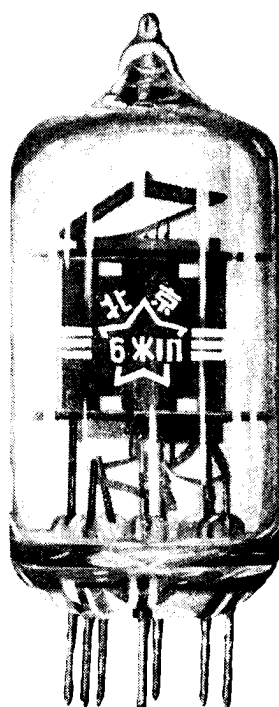


# R. F. PENTODE

6Ж1П

## DESCRIPTION

The miniature tube PEKING 6Ж1П is a sharp-cutoff pentode with indirectly heated oxide cathode designed for use as wide-band or v.h.f. amplifier of frequencies up to 400 Mc/s. in a.c. mains operated equipment.



## HEATER

Heater voltage	$V_h$	6.3	V
Heater current	$I_h$	170	mA

## CHARACTERISTICS

Anode voltage	$V_a$	120	V
Grid No. 2 voltage	$V_{g_2}$	120	V
Cathode bias resistor	$R_k$	200	$\Omega$
Anode current	$I_a$	7.35	mA
Grid No. 2 current	$I_{g_2}$	$\leq 3.2$	mA
Transconductance	$S$	5.2	mA/V
Internal resistance	$R_i$	0.3	M $\Omega$
Equivalent noise resistance	$R_{eq}$	1.8	K $\Omega$

PEKING ELECTRON TUBES



6Ж1П

R. F. PENTODE

# MAXIMUM RATINGS

Heater voltage	$V_h$	5.7—6.9	V
Anode voltage	$V_a \text{ max}$	200	V
Grid No. 2 voltage	$V_{g_2} \text{ max}$	150	V
Anode dissipation	$W_a \text{ max}$	1.8	W
Grid No. 2 dissipation	$P_{g_2} \text{ max}$	0.55	W
Cathode current	$I_k \text{ max}$	20	mA
Grid No. 1 circuit resistor	$R_{g_1} \text{ max}$	1.0	M $\Omega$
Heater—cathode voltage	$V_{kh}$	$\pm 120$	V

# CAPACITANCES

input	$C_i$	4.3	pF
output	$C_o$	2.35	pF
Grid No. 1 to anode	$C_{g_1 a}$	$\leq 0.02$	pF

**Base:** Miniature 7 pin

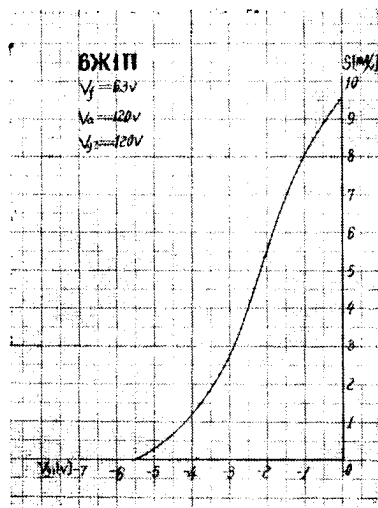
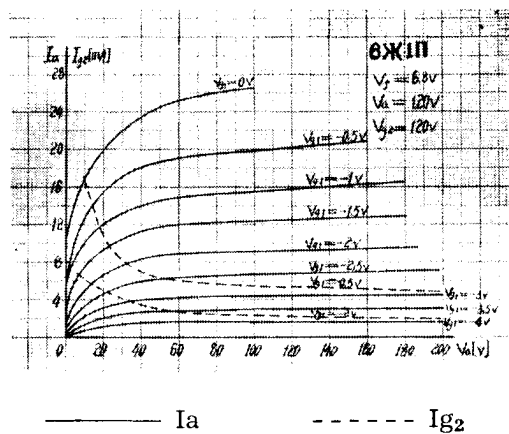
**Weight:** 15 g. (approx.)

**Mounting:** Any

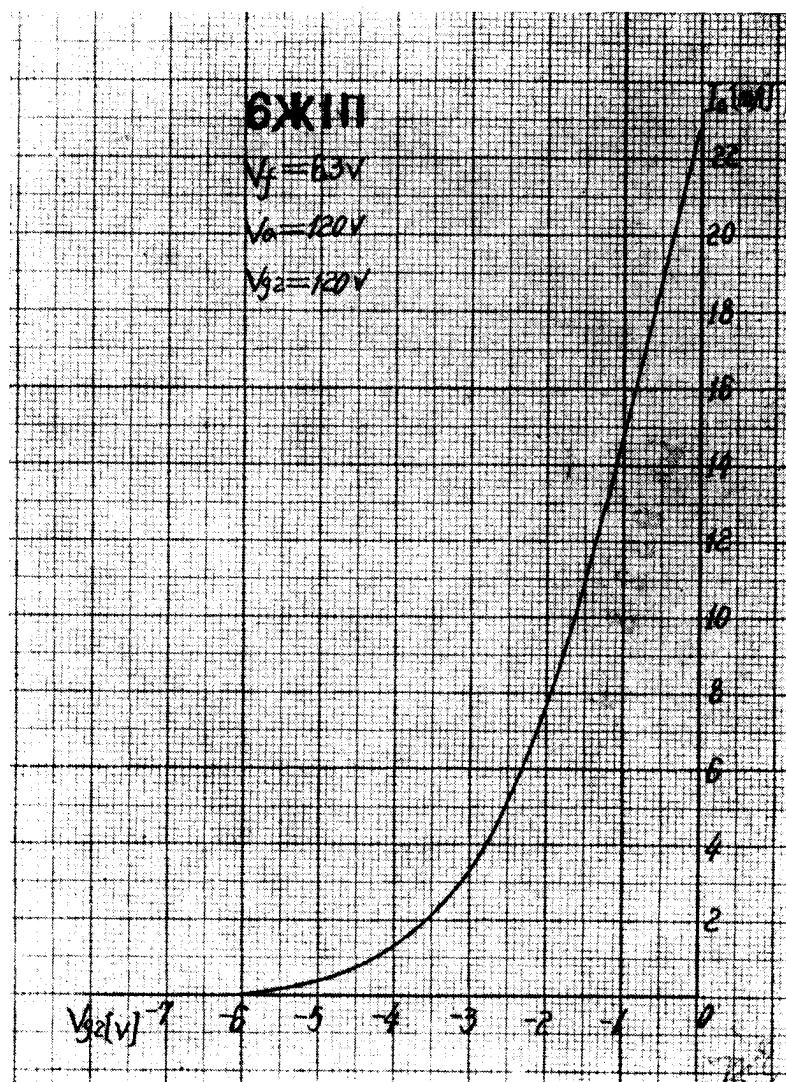


PEKING ELECTRON TUBES

6Ж1П



6Ж1П

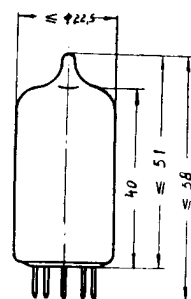


# TWIN TRIODE

# 6H1П

## DESCRIPTION

The miniature tube PEKING 6H1П is a medium-mu twin triode with indirectly heated separate oxide cathodes, primarily intended for use as an a.f. voltage amplifier or phase inverter in a.c. mains operated equipment.



## HEATER

Heater voltage	$V_h$	6.3	V
Heater current	$I_h$	600	mA

## CHARACTERISTICS (each section)

Anode voltage	$V_a$	250	V
Cathode bias resistor	$R_k$	600	$\Omega$
Anode current	$I_a$	7.5	mA
Transconductance	$S$	4.35	mA/V
Amplification factor	$\mu$	35	
Internal resistance	$R_i$	8.0	K $\Omega$

PEKING ELECTRON TUBES





# 6H1Π

# TWIN TRIODE

## MAXIMUM RATINGS (each section)

Heater voltage	$V_h$	5.7—6.9	V
Anode voltage	$V_a$	300	V
Anode dissipation	$W_a$	2.2	W
Cathode current	$I_k$	25	mA
Grid circuit resistor	$R_g$	1.0	M $\Omega$
Heater—cathode voltage	$V_{hk}$	+100 —250	V V

## CAPACITANCES

Input (each section)	$C_i$	3.1	pF
Output (each section)	$C_o$	1.85	pF
Grid to anode (each section)	$C_{g/a}$	$\leq 2.7$	pF
Anode No. 1 to anode No. 2	$C_{a_1/a_2}$	$\leq 0.2$	pF

**Base:** Miniature 9 pin

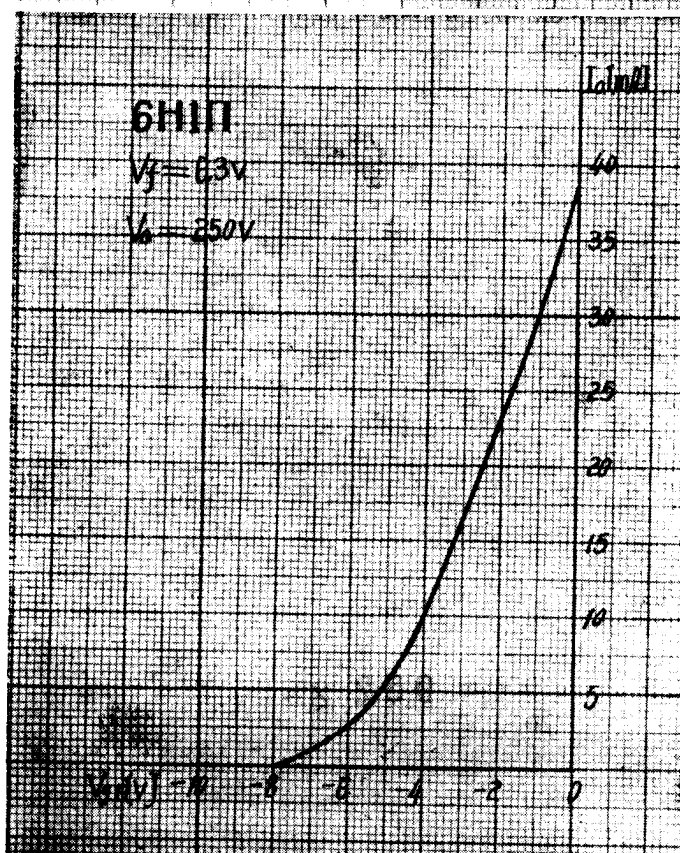
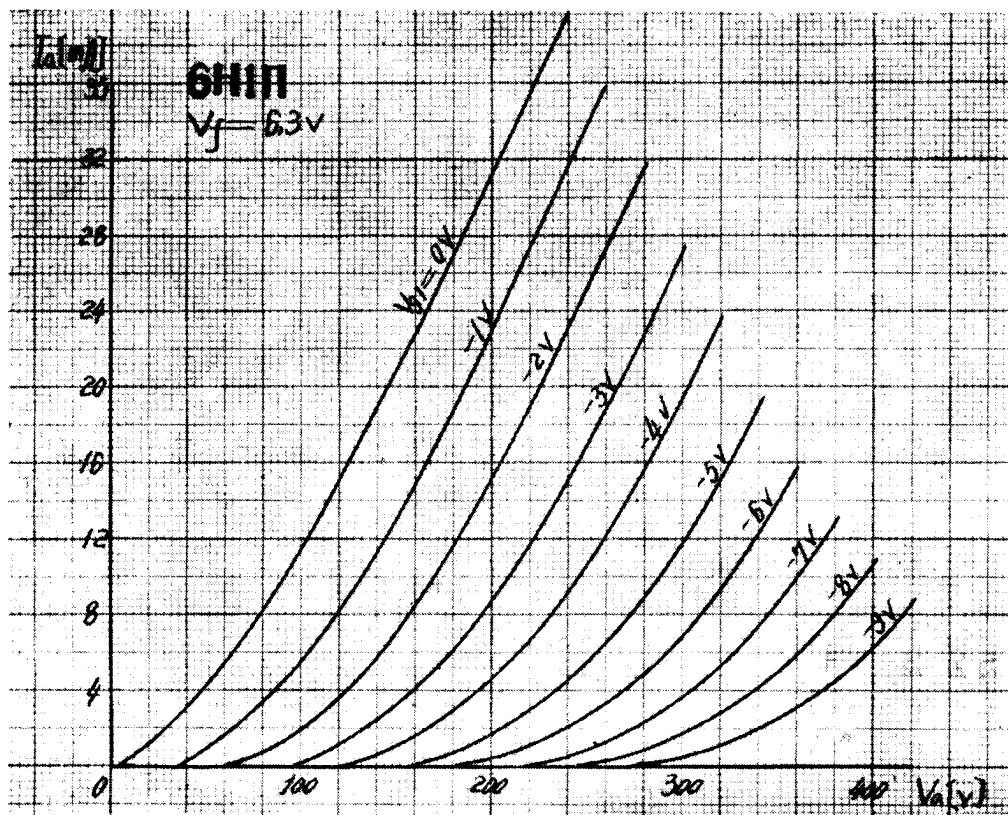
**Weight:** 15 g.

**Mounting:** Any

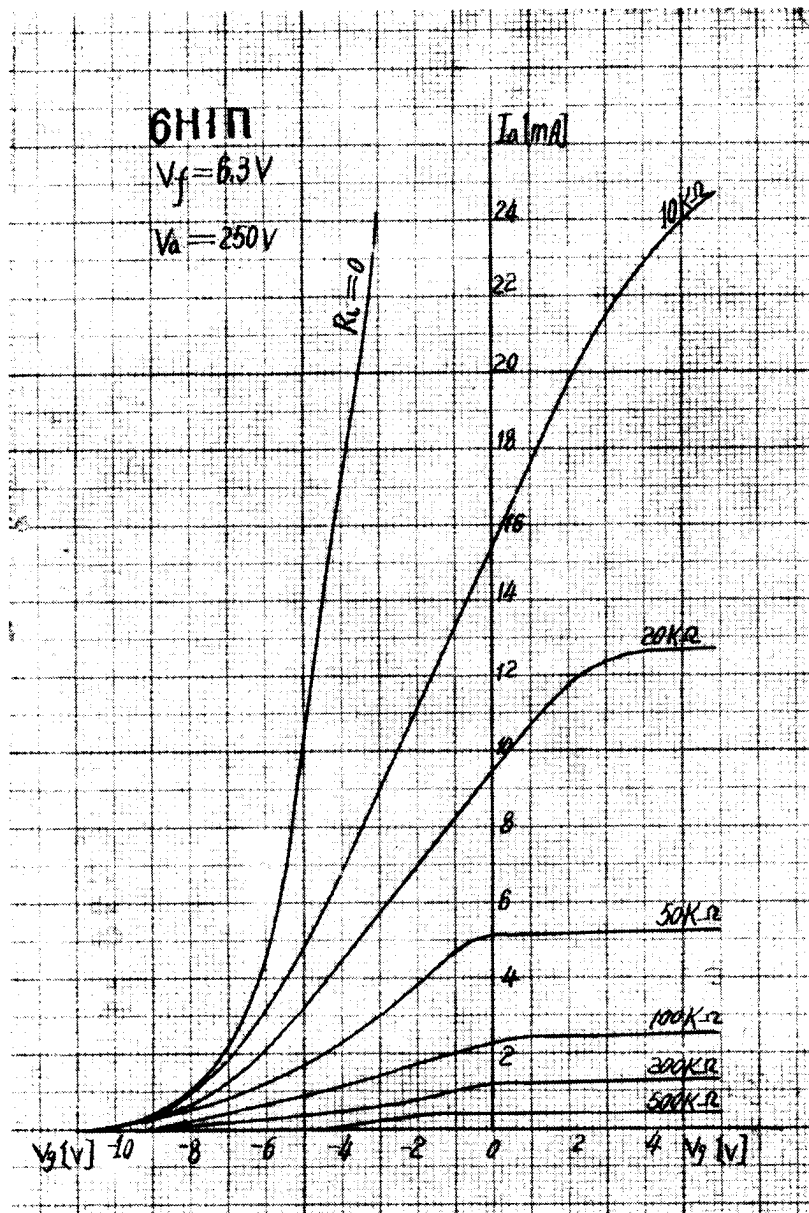


## PEKING ELECTRON TUBES

6Н1П



# 6H1П

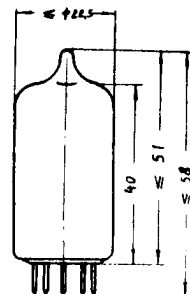


## TWIN TRIODE

6H2Π

## DESCRIPTION

The miniature tube PEKING 6H2Π is a high-mu twin triode with indirectly heated separate oxide cathodes, primarily intended for use as an a.f. voltage amplifier or phase inverter in a.c. mains operated equipment.



## HEATER

Heater voltage  
Heater current

$V_h$	6.3	V
$I_h$	340	mA

## CHARACTERISTICS (each section)

Anode voltage	$V_a$	250	V
Grid voltage	$V_g$	-1.5	V
Anode current	$I_a$	2.3	mA
Transconductance	$S$	2.1	mA/V
Amplification factor	$\mu$	97.5	
Internal resistance	$R_i$	46.5	K $\Omega$

## MAXIMUM RATINGS (each section)

Heater voltage	$V_h$	5.7—6.9	V
Anode voltage	$V_a$	300	V
Anode dissipation	$W_a$	1	W
Cathode current	$I_k$	10	mA
Grid circuit resistor	$R_g$	0.5	M $\Omega$
Heater-cathode voltage	$V_{hk}$	$\pm 100$	V

PEKING ELECTRON TUBES



6H2Π

TWIN TRIODE

**CAPACITANCES**

Input (each section)	C <sub>i</sub>	2.35	pF
Output (1st section)	C <sub>o<sub>1</sub></sub>	2.95	pF
Output (2nd section)	C <sub>o<sub>2</sub></sub>	3.15	pF
Grid to anode (each section)	C <sub>a<sub>1</sub></sub> /a <sub>2</sub>	≤0.3	pF
Anode No. 1 to anode No. 2	C <sub>g/a</sub>	≤0.7	pF

**Base:** Miniature 9 pin

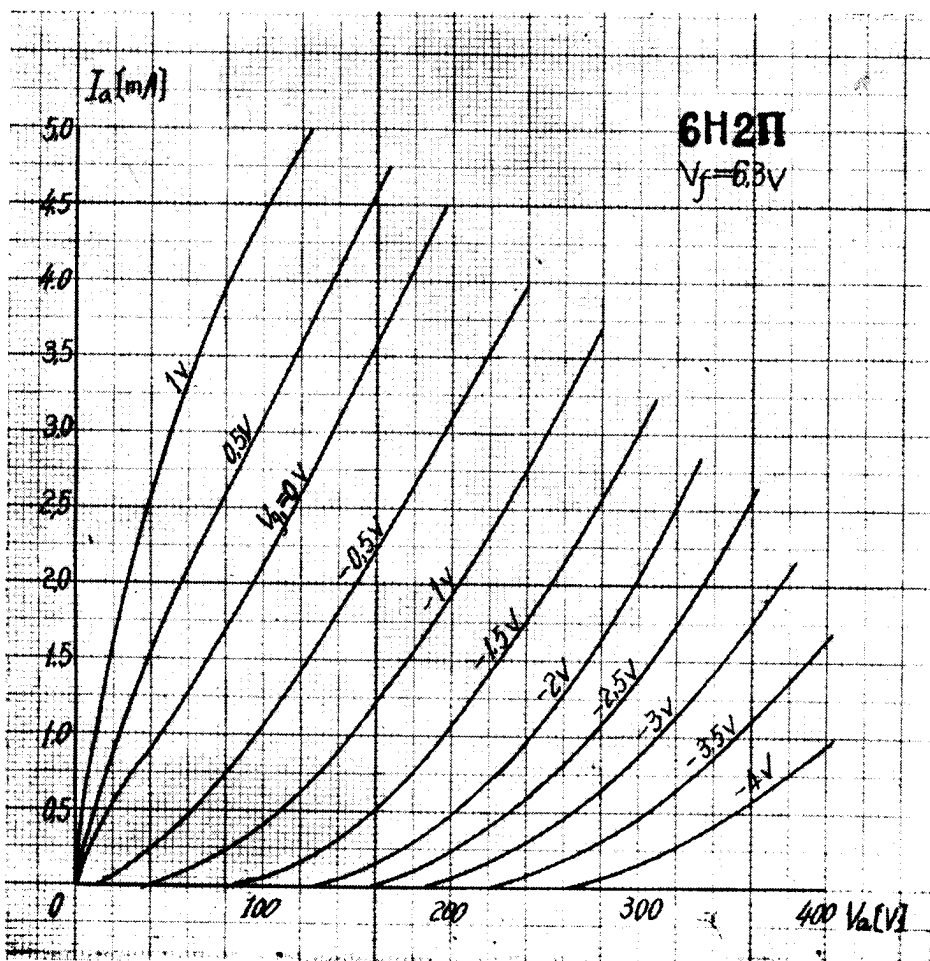
**Weight:** 15 g. (approx.)

**Mounting:** Any

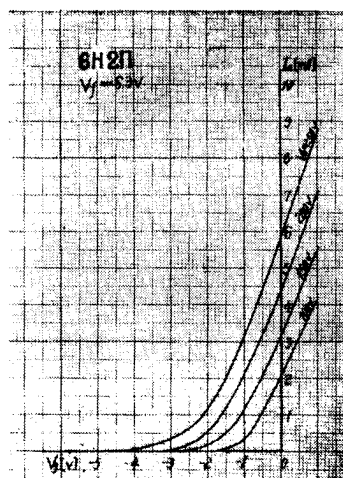
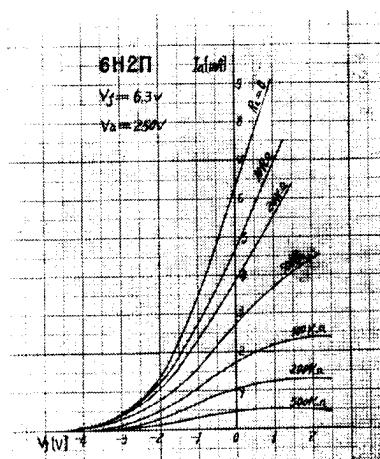


PEKING ELECTRON TUBES

# 6H2П



6H2П

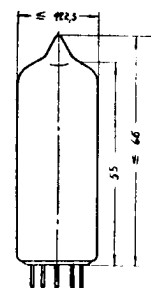
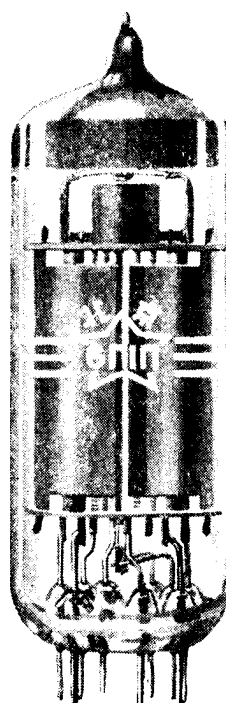


# BEAM TETRODE

6П1П

## DESCRIPTION

The miniature tube PEKING 6П1П is a beam tetrode with indirectly heated oxide cathode, primarily intended for use as an output power amplifier in a.c. mains operated equipment.



## HEATER

Heater voltage	Vh	6.3	V
Heater current	Ih	500	mA

## CHARACTERISTICS

Anode voltage	Va	250	V
Grid No. 2 voltage	Vg <sub>2</sub>	250	V
Grid No. 1 voltage	Vg <sub>1</sub>	-12.5	V
Anode current	Ia	44	mA
Grid No. 2 current	Ig <sub>2</sub>	≤ 7.0	mA
Transconductance	S	4.9	mA/V
Internal resistance	R <sub>i</sub>	50	K Ω

PEKING ELECTRON TUBES





6Π1Π

BEAM TETRODE

**OPERATING CONDITIONS**

(As single tube class A amplifier)

Plate voltage	$V_a$	250	V
Grid No. 2 voltage	$V_{g_2}$	250	V
Grid No. 1 voltage	$V_{g_1}$	-12.5	V
R.M.S. input voltage	$V_{g_1} \sim$	8.8	V
Anode load resistor	$R_l$	5.0	K $\Omega$
Anode current	$I_a$	44	mA
Grid No. 2 current	$I_{g_2}$	7.0	mA
Power output	$W_o$	4	W
Total harmonic distortion	$D_{tot}$	14	%

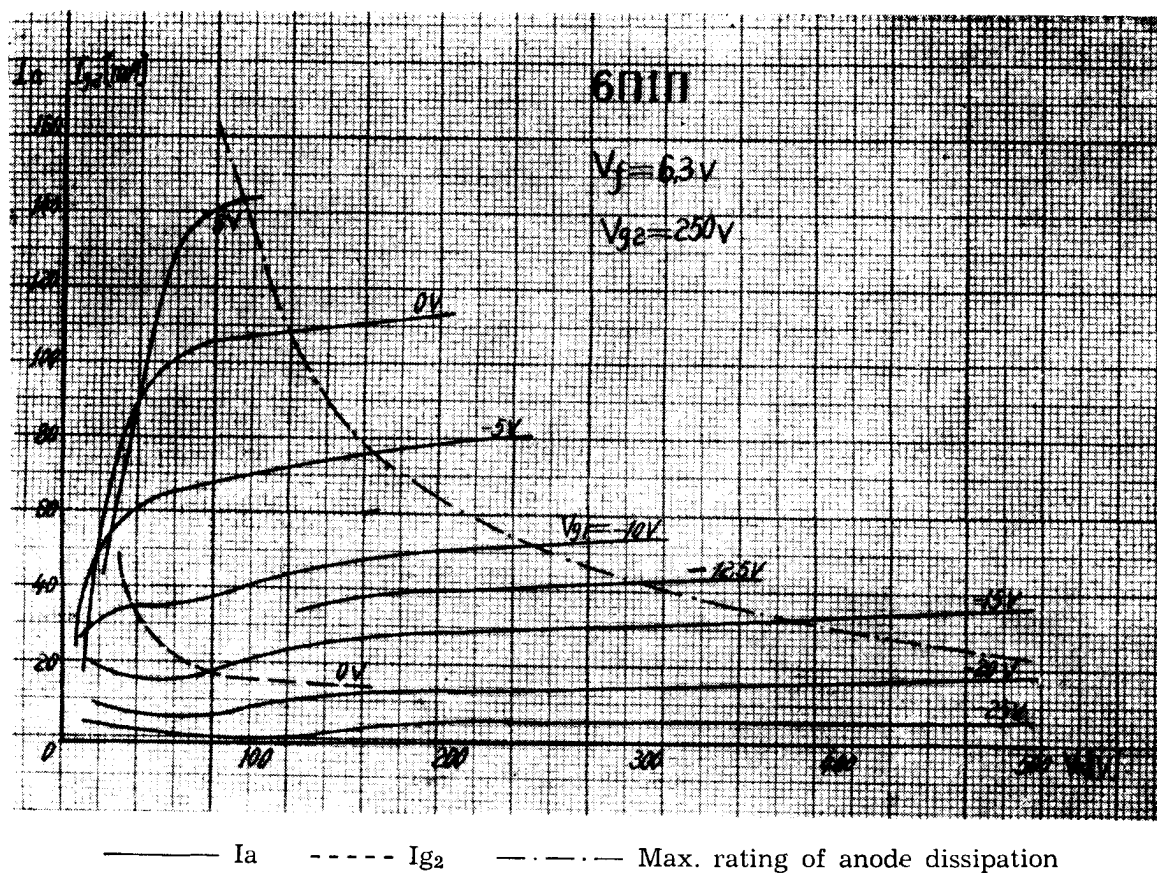
**MAXIMUM RATINGS**

Heater voltage	$V_h$	5.7—6.9	V
Anode voltage	$V_a \text{ max}$	250	V
Grid No. 2 voltage	$V_{g_2} \text{ max}$	250	V
Anode dissipation	$W_a \text{ max}$	12	W
Grid No. 2 dissipation	$W_{g_2} \text{ max}$	2.2	W
Cathode current	$I_k \text{ max}$	70	mA
Grid No. 1 circuit resistor	$R_{g_1} \text{ max}$	0.5	M $\Omega$
Heater-cathode voltage	$V_{hk} \text{ max}$	100	V

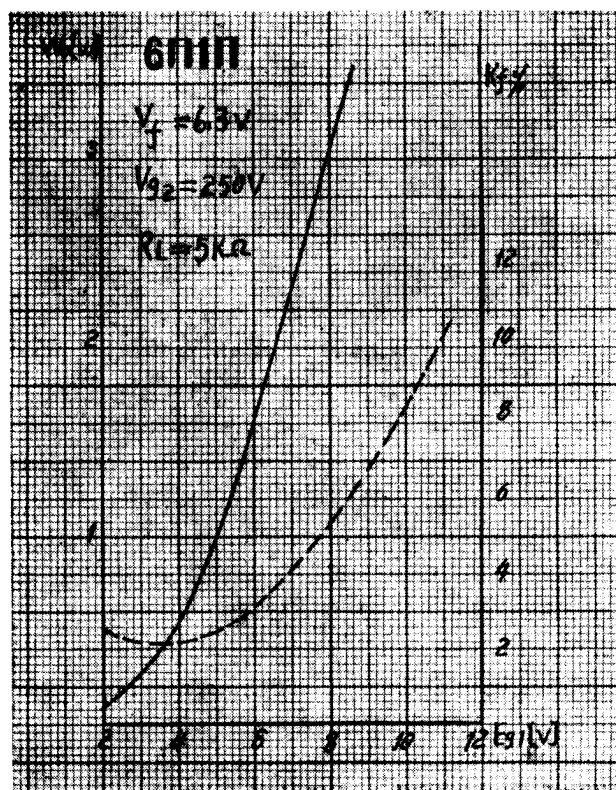
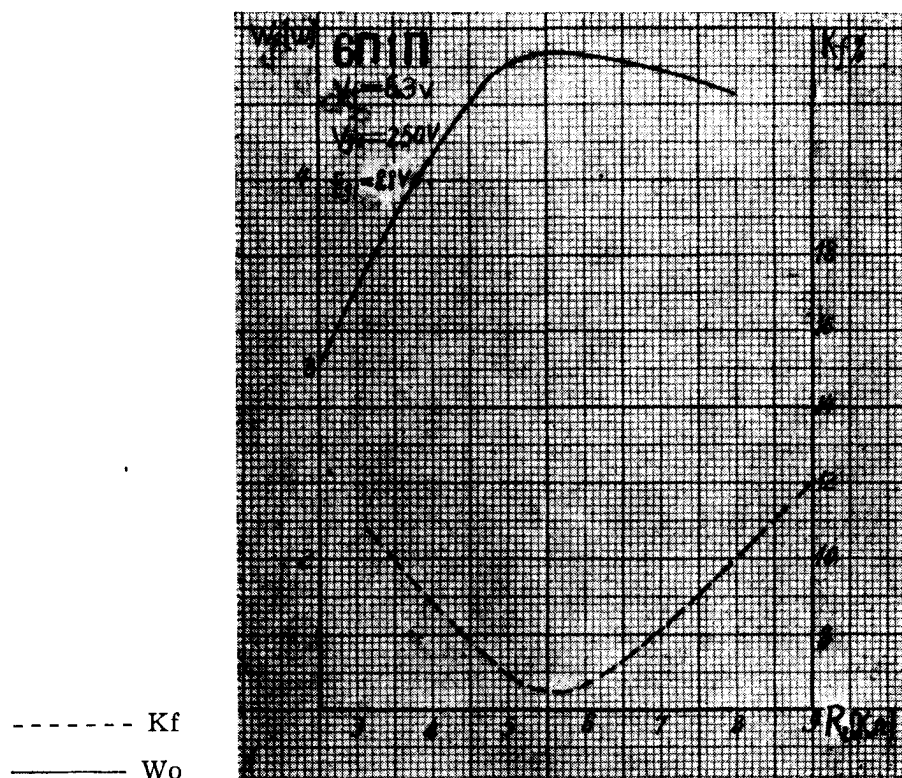
**Base:** Miniature 9 pin**Weight:** 16 g. (max.)**Mounting:** Any

PEKING ELECTRON TUBES

6П1П

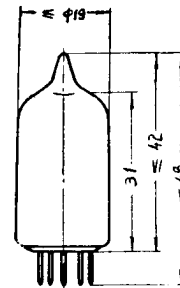
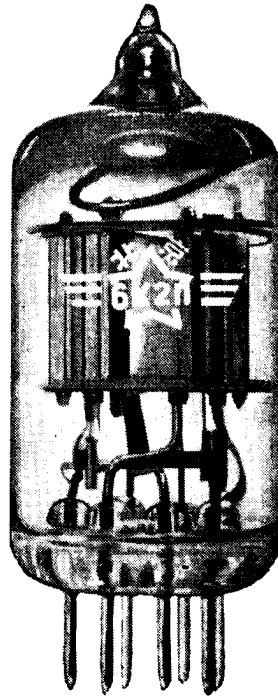


6П1П



6X2П

The miniature tube PEKING 6X2Π is a twin diode with indirectly heated separated oxide cathodes, primarily intended for use as a detector of a.m. or f.m. signals and suitable for low power rectifier in a.c. mains operated receivers.



Heater voltage	$V_h$	6.3	V
Heater current	$I_h$	300	mA

R.M.S. anode supply voltage	$V_a \sim$	$2 \times 150$	V
Load resistor	$R_l$	10	$K\Omega$
Filter capacitor	$C_f$	8	$\mu F$
D.C. output current	$I_l$	$\geq 17$	mA

R.M.S. anode supply voltage	$V_a \sim$	$2 \times 100$	$2 \times 125$	$2 \times 150$	$2 \times 170$	V
Filter capacitor	$C_f$	8	8	8	8	$\mu F$
Minimum limiting resistor (per plate)	$R_{lim \ min}$	130	250	350	430	$\Omega$
D.C. output current	$I_l$	20	20	20	20	mA
D.C. output voltage	$V_l$	115	140	170	195	V

# PEKING ELECTRON TUBES



6X2Π

TWIN DIODE

Note: The value of  $R_{lim \min}$  is calculated from:

$$R_{lim \min} = R_t + R_{lim}$$

$$R_t = R_s + N^2 R_p$$

where  $R_t$  = d.c. resistance contributed at each anode of the rectifier by the transformer.

$R_s$  = d.c. resistance of the turns on each half secondary.

$R_p$  = d.c. resistance of the turns on primary.

$N$  = ratio of the turns on half of the secondary to the primary, (may be taken as the voltage ratio)

$R_{lim}$  = limiting resistor. (if  $R_t$  is less than  $R_{lim \min}$ ,  $R_{lim}$  must be added at each anode circuit)

#### MAXIMUM RATINGS

Heater voltage	$V_h$	5.7—6.9	V
Peak inverse anode voltage	$V_{pk \max}$	450	V
D.C. output current	$I_l \max$	20	mA
Peak anode current	$I_{pk \max}$	90	mA
Heater—cathode voltage	$V_{hk \max}$	$\pm 350$	V

#### CAPACITANCES

Anode to cathode, heater, internal and external shield (each diode)	$C_{a/k+h+S_i+Se}$	3.4	pF
Cathode to anode, heater, internal and external shield (each diode)	$C_{k/a+h+S_i+Se}$	3.8	pF
Anode No. 1 to anode No. 2	$C_{a_1/a_2}$	$\leq 0.03$	pF
Cathode to heater	$C_{k/h}$	$\leq 4$	pF

**Base:** Miniature 7 pin

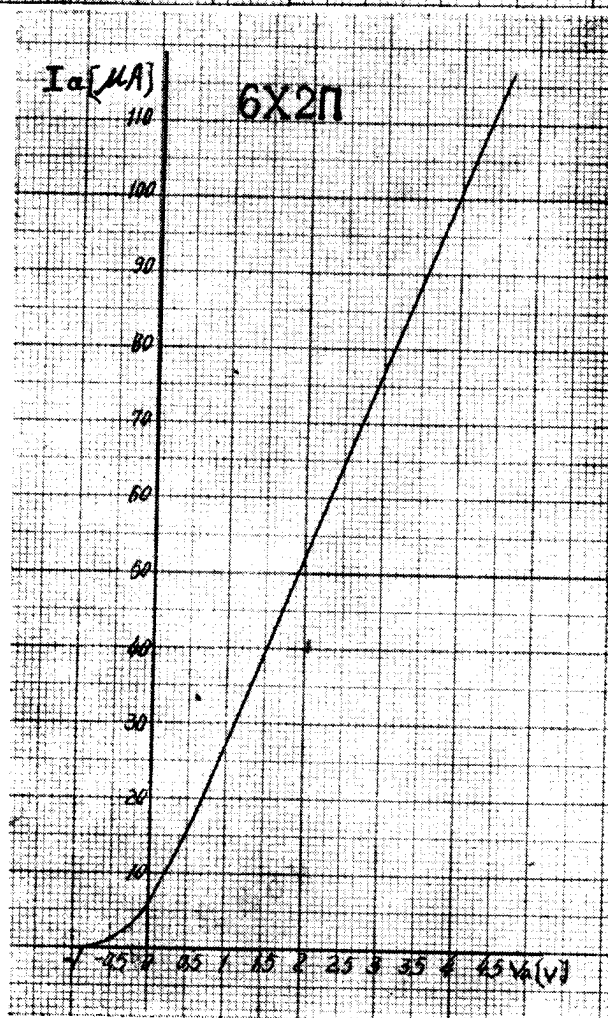
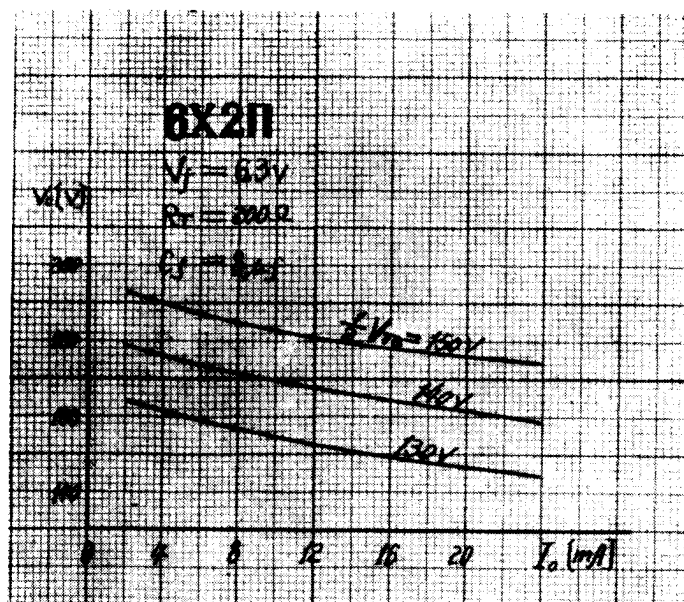
**Weight:** 10 g. (max.)

**Mounting:** Any

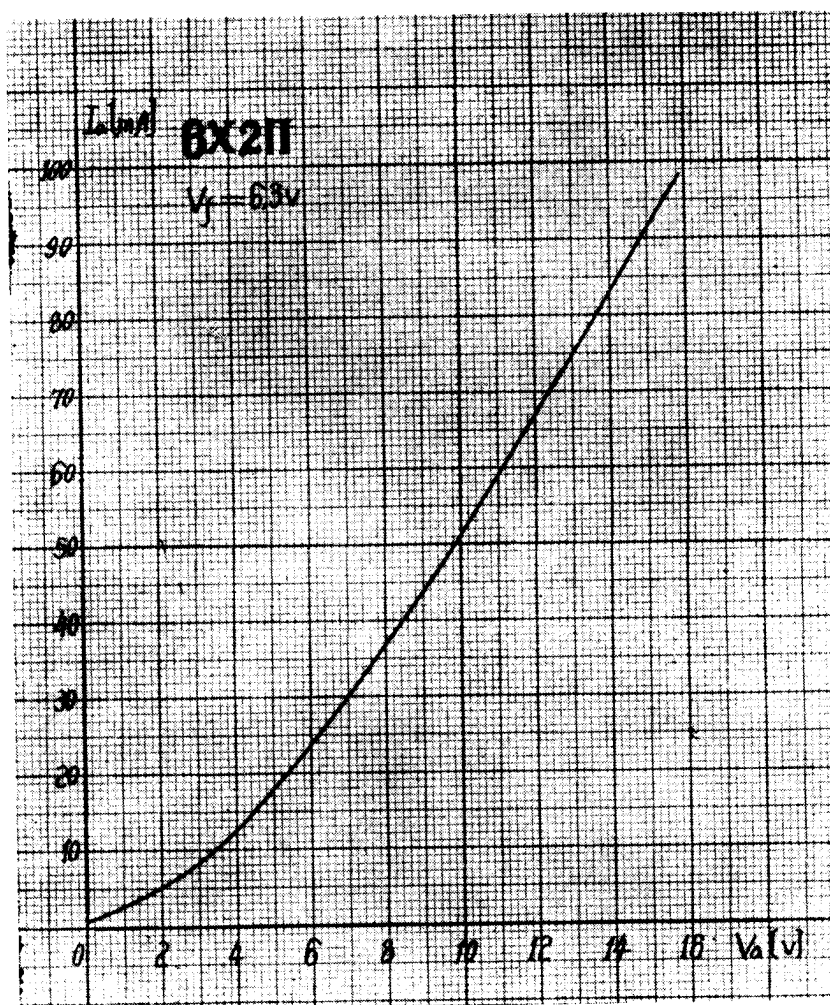


PEKING ELECTRON TUBES

# 6X2П



6X2Π

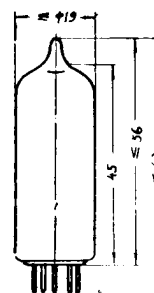
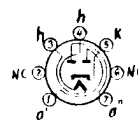
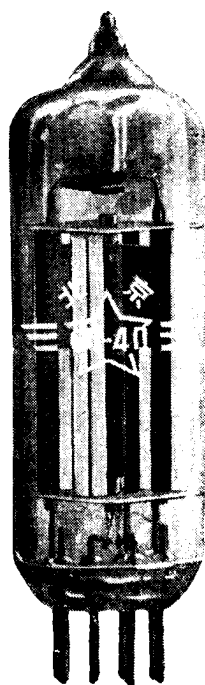


## FULL-WAVE RECTIFIER

6Ц4П

## DESCRIPTION

The miniature tube PEKING 6Ц4П is a full-wave rectifier with indirectly heated oxide cathode designed as power rectifier for use in a.c. mains operated receivers.



## HEATER

Heater voltage	$V_h$	6.3	V.
Heater current	$I_h$	600	mA

## CHARACTERISTICS

R.M.S. anode supply voltage	$V_{a\sim}$	$2 \times 350$	V
Load resistor	$R_l$	5200	$\Omega$
Filter capacitor	$C_f$	8	$\mu F$
D.C. output current	$I_l$	$\geq 72$	mA

## OPERATING CONDITIONS

R.M.S. anode supply voltage	$V_{a\sim}$	$2 \times 200$	$2 \times 300$	$2 \times 350$	$2 \times 400$	V
Filter capacitor	$C_f$	8	8	8	8	$\mu F$
Minimum limiting resistor (per plate)	$R_{lim \min}$	100	200	300	400	$\Omega$
D.C. output current	$I_l$	75	75	75	75	mA
D.C. output voltage	$V_l$	205	310	360	415	V

PEKING ELECTRON TUBES





# 6Ц4П FULL-WAVE RECTIFIER

Note: The value of  $R_{lim \min}$  is calculated from:

$$R_{lim \min} = R_t + R_{lim}$$

$$R_t = R_s + N^2 R_p$$

where  $R_t$  = d.c. resistance contributed at each anode of the rectifier by the transformer.

$R_s$  = d.c. resistance of the turns on each half secondary.

$R_p$  = d.c. resistance of the turns on primary.

$N$  = ratio of the turns on half of the secondary to the primary, (may be taken as the voltage ratio)

$R_{lim}$  = limiting resistor. (if  $R_t$  is less than  $R_{lim \min}$ ,  $R_{lim}$  must be added at each anode circuit)

## MAXIMUM RATINGS

Heater voltage	$V_h$	5.7—6.9	V
Peak inverse anode voltage	$V_{pk \max}$	1000	V
D.C. output current	$I_l \max$	75	mA
Peak anode current	$I_{pk \max}$	300	mA
Heater-cathode voltage	$V_{hk \max}$	±400	V

**Base:** Miniature 7 pin

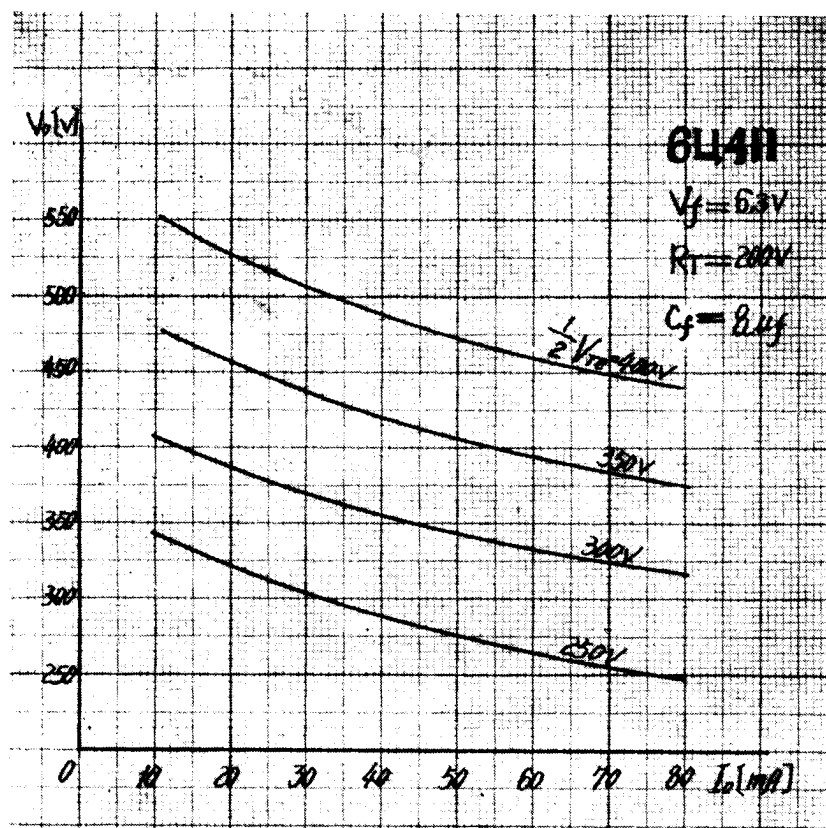
**Weight:** 10 g. (max.)

**Mounting:** Any

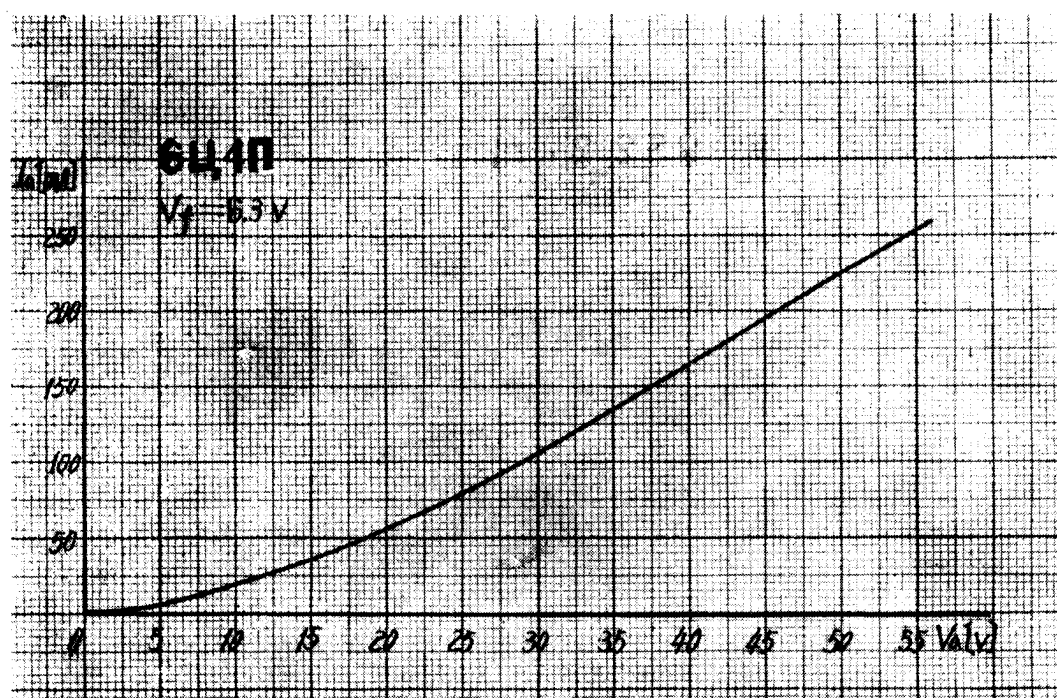


PEKING ELECTRON TUBES

6Ц4П



6Ц4П

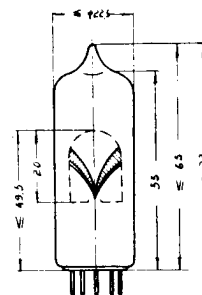
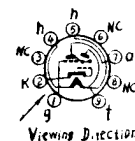


# TUNING INDICATOR

# 6E1Π

## DESCRIPTION

The miniature tube PEKING 6E1Π is a electron beam tube with indirectly heated oxide cathode designed for use as tuning indicator in f.m. or a.m. receivers or as a level indicator in tape recorders.



## HEATER

Heater voltage	$V_h$	6.3	V
Heater current	$I_h$	300	mA

## CHARACTERISTICS

Anode voltage	$V_a$	100	V
Target voltage	$V_{tg}$	250	V
Grid voltage	$V_g$	-2	V
Anode current	$I_a$	2	mA
Target current	$I_{tg}$	< 4	mA

PEKING ELECTRON TUBES



# 6E1Π

# TUNING INDICATOR

## OPERATING CONDITIONS

H.T. line voltage	$V_{h.t.}$	250	V
Target voltage	$V_{tg}$	250	V
Anode load resistor	$R_l$	0.5	$M\Omega$
Grid circuit resistor	$R_{g1}$	0.1	$M\Omega$
Target current	$T_{tg}$	<4	mA
Grid voltage:			
for maximum shadow angle	$V_g \text{ max}$	0	V
for minimum shadow angle	$V_g \text{ min}$	-15	V

## MAXIMUM RATINGS

Heater voltage	$V_h$		
Anode voltage	$V_a \text{ max}$	250	V
Target voltage (max.)	$V_{tg} \text{ max}$	250	V
Target voltage (min.)	$V_{tg} \text{ min}$	150	V
Anode dissipation	$W_a \text{ max}$	0.2	W
Grid circuit resistor	$R_g \text{ max}$	3	$M\Omega$
Heater—cathode voltage	$V_{hk} \text{ max}$	$\pm 100$	V

**Base:** Miniature 9 pin

**Weight:** 14 g. (max.)

**Mounting:** Any



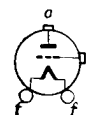
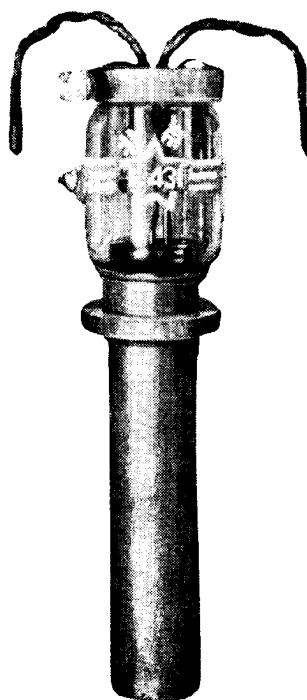
## PEKING ELECTRON TUBES

# TRIODE

Г-431

## DESCRIPTION

The transmitting tube PEKING Г-431 is a water and forced-air cooled triode with directly heated tungsten filament and is designed for an anode dissipation of 20 kw. It can be employed as high-power broadcast and industrial h.f. heating application.



## FILAMENT

Filament voltage	$V_f$	22	V
Filament current	$I_f$	102	A

## CHARACTERISTICS

Filament cold resistance	$R_f$	0.018	$\Omega$
Cathode emission	$I_k$	12	A
Transconductance (5kv/3A)	S	12	mA/V
Amplification factor (5 & 10kv/1A)	$\mu$	50	
Normal power output of frequency up to 6 MC/S	$W_o$	30	KW

PEKING ELECTRON TUBES



Γ-431

TRIODE

# MAXIMUM RATINGS

Filament voltage	Vf max	22	V
Filament starting current	I <sub>f</sub> st. max	155	A
Anode voltage:			
at frequency up to 6 MC/S	Va max	15	KV
at frequency up to 12 MC/S	Va max	11	KV
at frequency up to 25 MC/S	Va max	7.5	KV
Anode dissipation	Wa max	20	KW
Frequency	f max	25	MC/S

# CAPACITANCES

Input	Ci	25	pF
Output	Co	1.5	pF
Grid to anode	Cg/a	23	pF

# COOLING

Anode: by circulating water, 30 liters/min

Buld: by forced air, 80 m<sup>3</sup>/hour

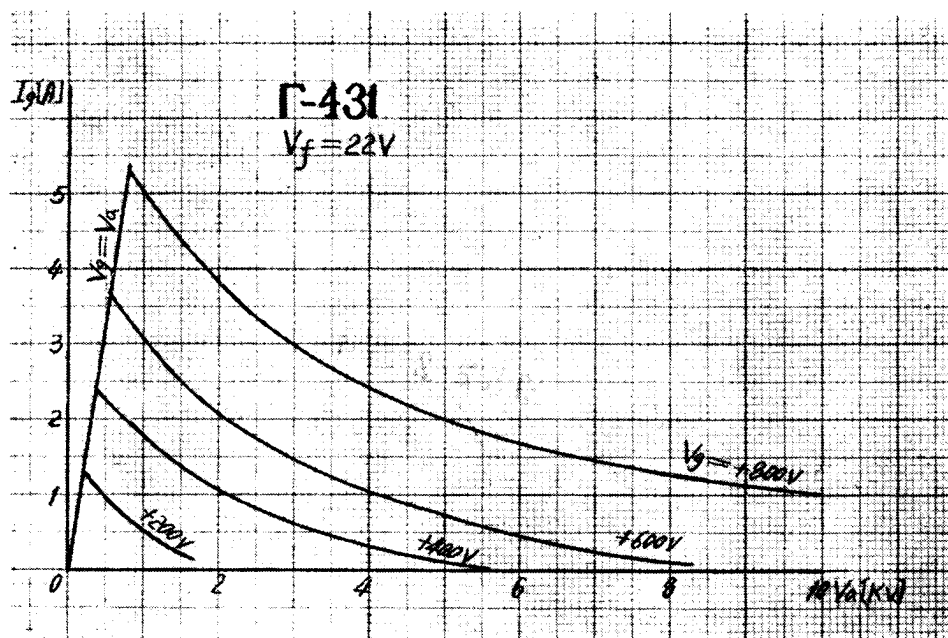
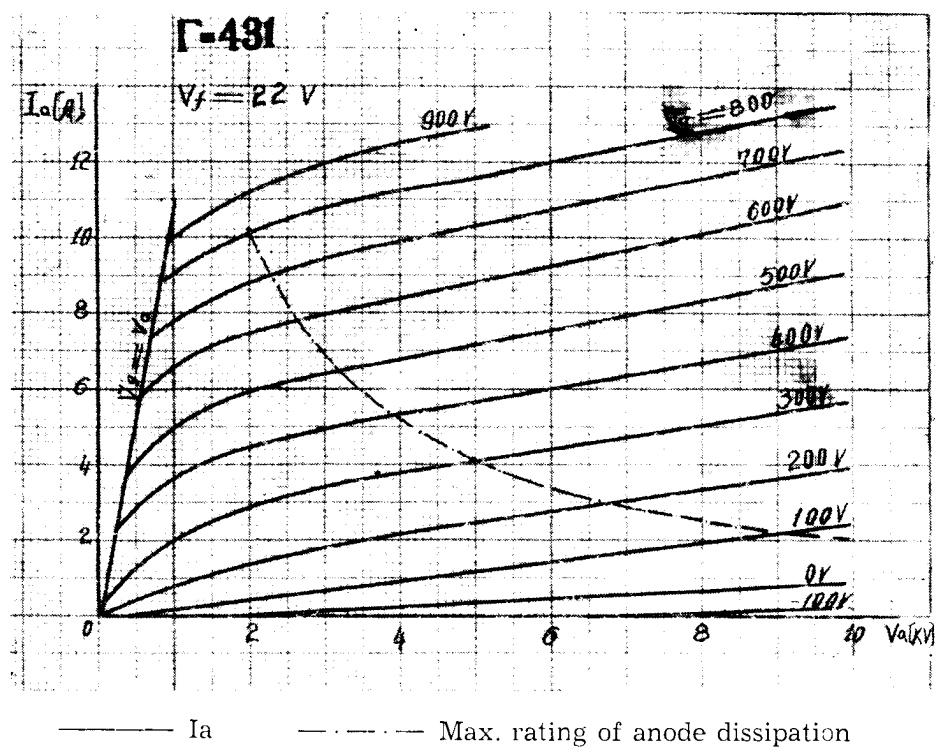
**Weight:** 5 kgs. (max.)

**Mounting:** Vertical, anode down



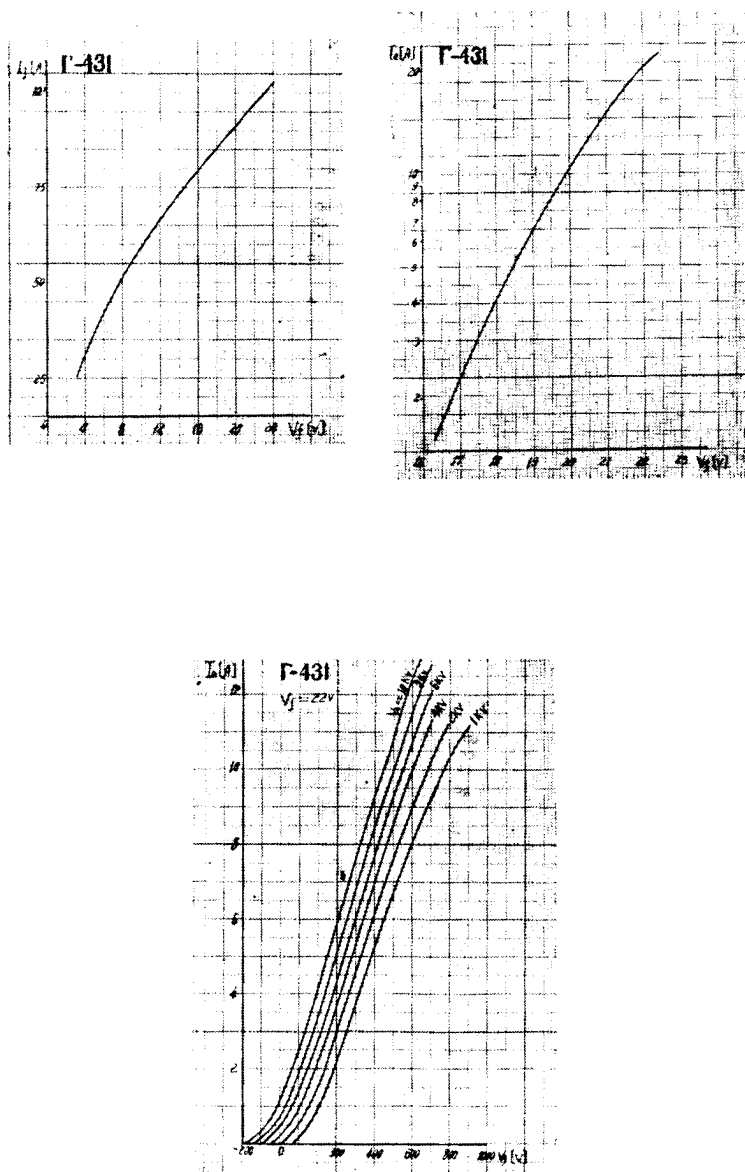
PEKING ELECTRON TUBES

Г-431





# Г-431

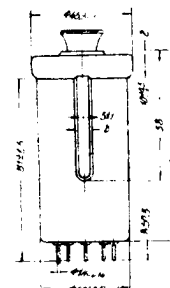
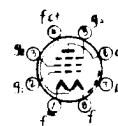
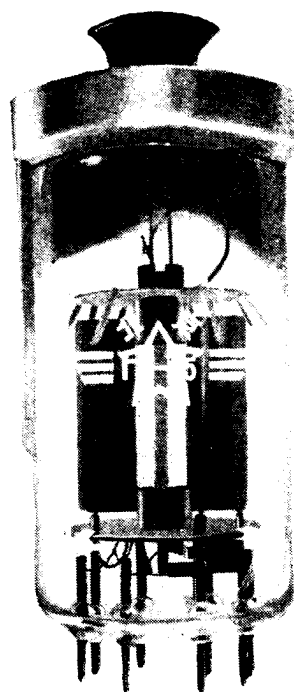


# PENTODE

# ГУ-15

## DESCRIPTION

The transmitting tube PEKING ГУ-15 is a h.f. pentode with centre-tapped directly heated oxide filament, and designed for use as h.f. power amplifier or oscillator for frequencies up to 60 MC/S.



## FILAMENT

Filament voltage	$V_f$	4.4	V
Filament current	$I_f$	0.68	A

## CHARACTERISTICS

Anode voltage	$V_a$	220	V
Grid No. 3 voltage	$V_{g_3}$	0	V
Grid No. 2 voltage	$V_{g_2}$	200	V
Grid No. 1 voltage	$V_{g_1}$	-14	V
Anode current	$I_a$	50	mA
Grid No. 2 current	$I_{g_2}$	<7.5	mA
Transconductance	$S$	4.7	mA/V
Grid No. 1 voltage (at $I_a=2$ mA)	$V_{g_1}'$	-31	V

PEKING ELECTRON TUBES



**ГY-15****PENTODE****OPERATING CONDITIONS**

For Clacc C Amplifier

Anode voltage	$V_a$	350	V
Grid No. 3 voltage	$V_{g_3}$	200	V
Grid No. 2 voltage	$V_{g_2}$	200	V
Grid No. 1 voltage	$V_{g_1}$	-25	V
R.M.S. grid No. 1 exciting voltage	$V_{g_1 \sim}$	26	V
Total cathode current	$I_k$	$\leq 85$	mA
Grid No. 1 current	$I_{g_1}$	$\leq 1.5$	mA
Grid No. 2 current	$I_{g_2}$	$\leq 13$	mA
Power output	$W_o$	$> 12$	W
Frequency	$f$	6	MC/S

**MAXIMUM RATINGS**

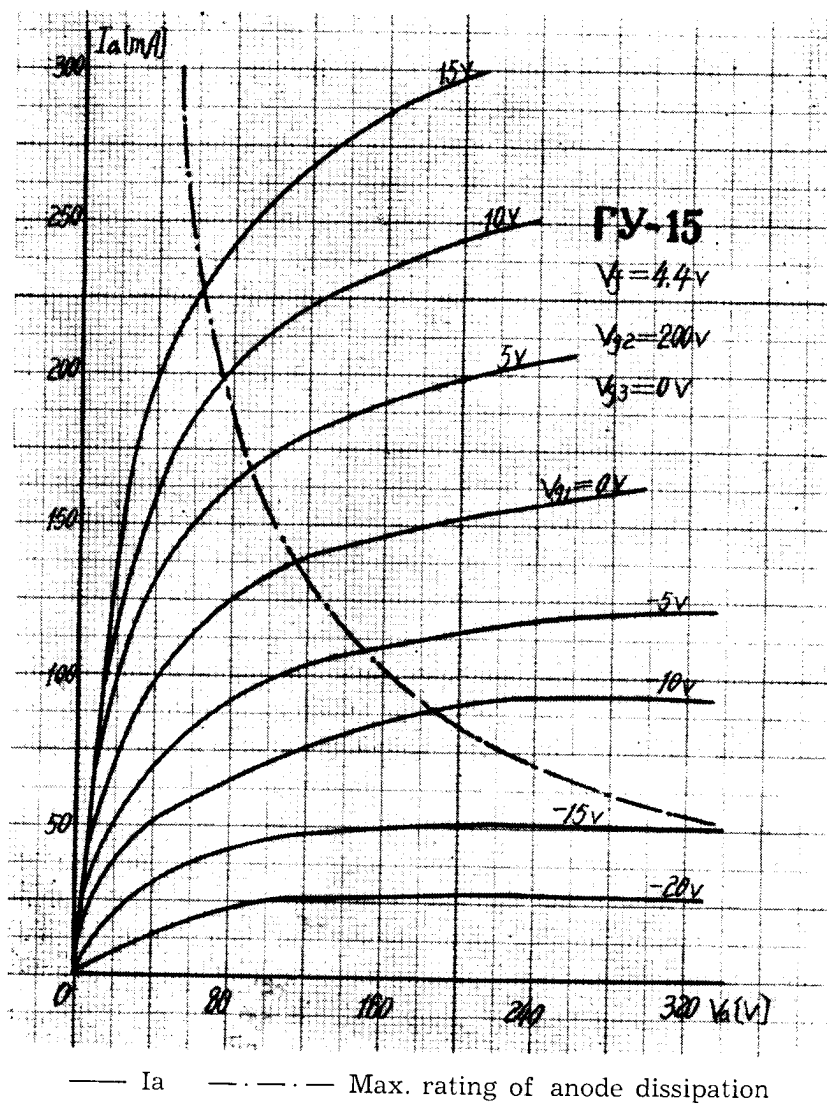
Filament voltage	$V_f$	4.0—4.8	V
Anode voltage	$V_a \text{ max}$	400	V
Grid No. 2 voltage	$V_{g_2} \text{ max}$	250	V
Anode dissipation	$W_a \text{ max}$	15	W
Grid No. 2 dissipation	$W_{g_2} \text{ max}$	4	W
Grid No. 1 dissipation	$W_{g_1} \text{ max}$	0.4	W
Total cathode current	$I_k \text{ max}$	85	mA
Frequency	$f \text{ max}$	60	MC/S

**CAPACITANCES**

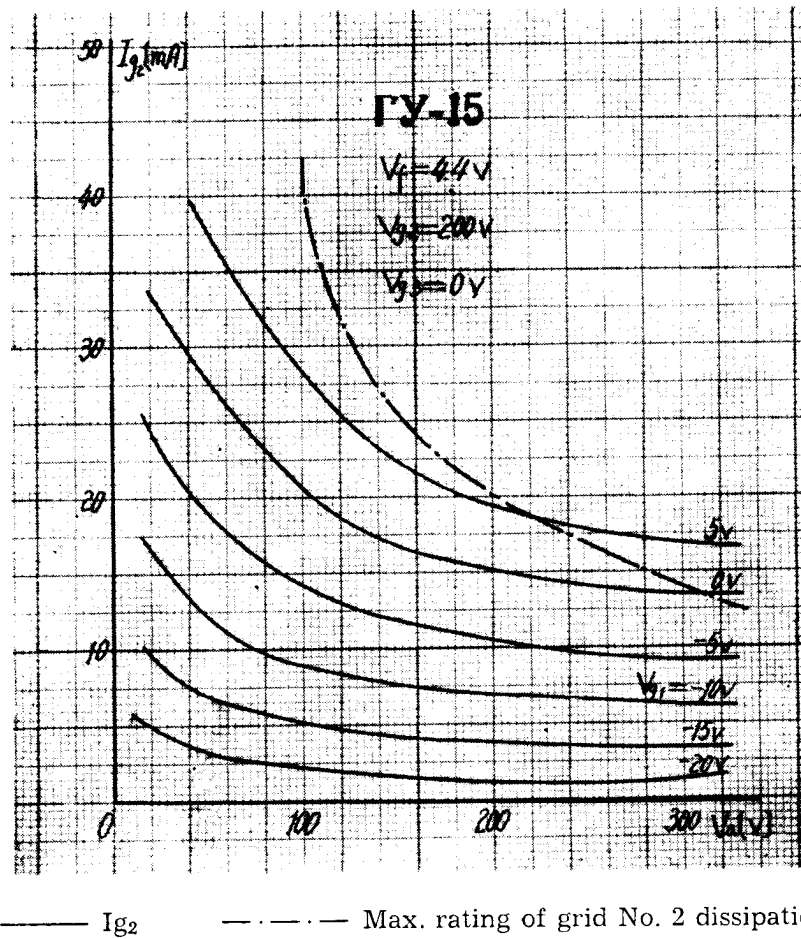
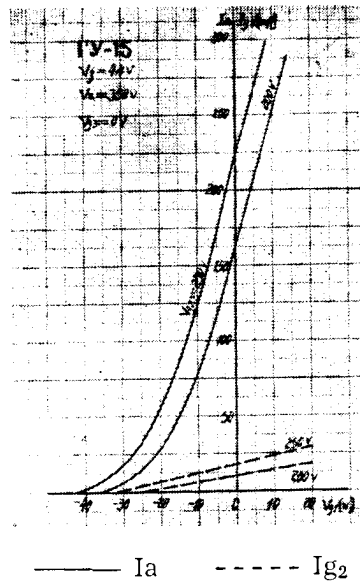
Input	$C_i$	10.5	pF
Output	$C_o$	12.5	pF
Grid No. 1 to plate	$C_{g_1/a}$	$< 0.16$	pF

**Base:** Special 8-pin. (See drawing)**Weight:** 100 gs. (max.)**Mounting:** Vertical, base down**PEKING ELECTRON TUBES**

# ГУ-15

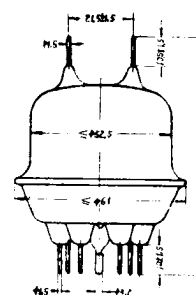
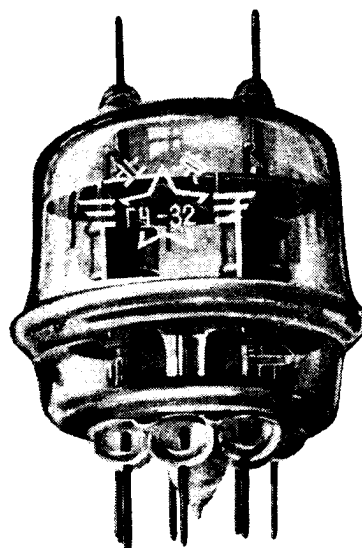


# ГУ-15



ГУ-32

The transmitting tube PEKING ΓV-32 is a u.h.f. twin-unit beam power tetrode with a indirectly heated oxide cathode, centre-tapped heater, and two carbonized nickel anodes. Particularly suitable for class C amplifier telegraph or plate-modulation telephone at u.h.f.



## Heater voltage

 $V_b$ 

Series

Parallel

12.6

## 6.3

V

Heater current

 $I_h$ 

0.8

1.6

A

Anode voltage

 $V_a$ 

250

V

Grid No. 2 voltage

 $V_g,$ 

130

V

Grid No. 1 voltage

 $V_{g_1}$ 

-10

V

Anode current

Ia

30

mA

Grid No. 1 current

 $\text{Ig}_1$  $\leq 5.5$ 

mA

### Transconductance

S

3.5

mA/V

Amplification factor ( $g_1$  to  $g_5$ ) $\mu$ 

7

Note: With grid No. 1 voltage of -100 volts on unit not under test.

# PEKING ELECTRON TUBES



**ГY-32****TWIN TETRODE****TYPICAL OPERATION**

For push-pull self-excited oscillator

Anode voltage	V <sub>a</sub>	400	V
Grid No. 2 voltage	V <sub>g<sub>2</sub></sub>	250	V
Total Anode current	I <sub>a</sub>	90	mA
Total Grid No. 2 current	I <sub>g<sub>2</sub></sub>	<11	mA
Total Grid No. 1 current	I <sub>g<sub>1</sub></sub>	2 to 6	mA
Grid No. 1 circuit resistor	V <sub>g<sub>1</sub></sub>	8 to 18	KΩ
Frequency	f	200	MC/S

**MAXIMUM RATINGS**

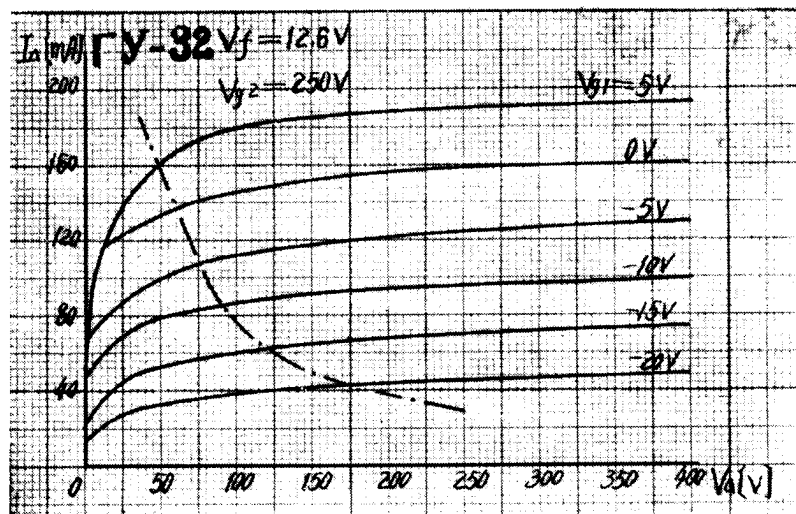
		Series	Parallel	
Heater voltage	V <sub>h</sub>	11.4—14	5.7—7.0	V
Anode voltage	V <sub>a</sub> max		500	V
Grid No. 2 voltage	V <sub>g<sub>2</sub></sub> max		250	V
Anode dissipation	W <sub>a</sub> max		15	W
Grid No. 2 dissipation	W <sub>g<sub>2</sub></sub> max		5	W
Heater—cathode voltage	V <sub>hk</sub> max		100	V
Frequency	I <sub>k</sub> max		200	MC/S
Bulb temperature	T <sub>b</sub> max		200°	C

**CAPACITANCES**

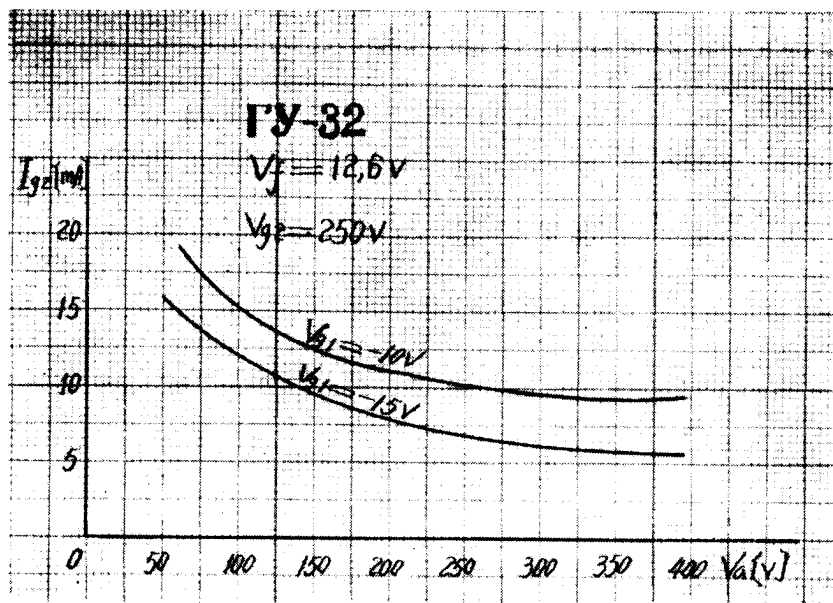
Input	C <sub>i</sub>	7.8	pF
Output	C <sub>o</sub>	3.8	pF
Grid No. 1 to plate	C <sub>g<sub>1</sub>/a</sub>	<0.05	pF

**Base:** Medium Molded-Flare 7-pin**Weight:** 100 g. (max.)**Mounting:** Any.**PEKING ELECTRON TUBES**

# ГУ-32



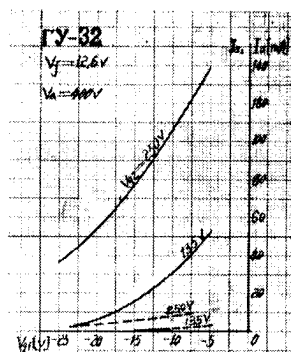
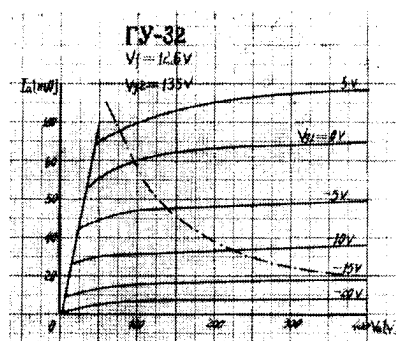
————  $I_a$  — — — — — Max. rating of anode dissipation  
(Each unit)



(Each unit)

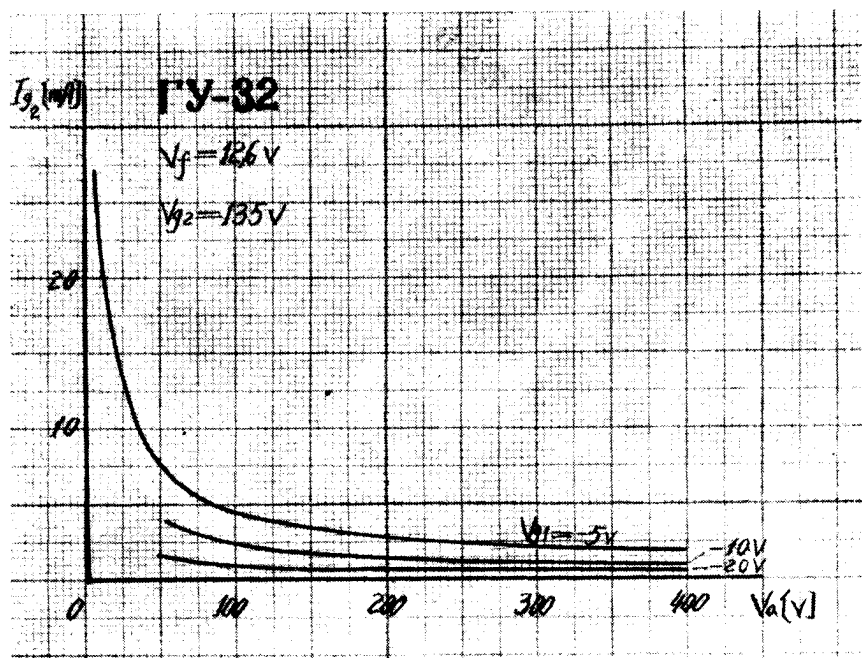


# $\Gamma Y-32$



—  $I_a$  — · — · Max. rating of  
 anode dissipation  
 (Each unit)

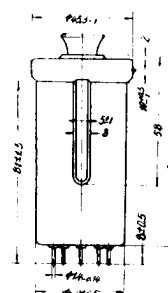
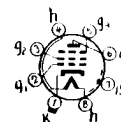
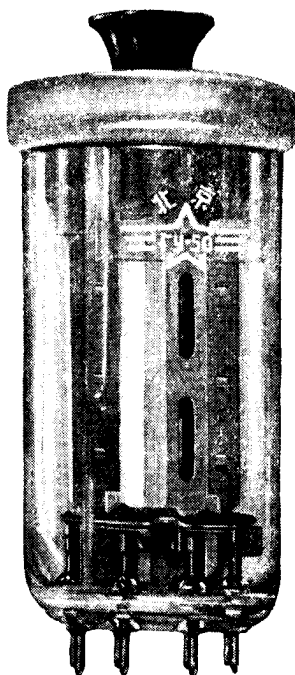
—  $I_a$  - - - -  $I_{g2}$   
 (Each unit)



(Each unit)

ГУ-50

The transmitting tube PEKING 1V-50 is a h.f. pentode with indirectly heated oxide cathode and a zirconium coated nickel anode. Specially designed for compact marine wireless equipment, and suitable for suppressor-modulated h.f. amplifier.



Heater voltage	$V_h$	12.6	V
Heater current	$I_h$	0.765	A

Anode voltage	$V_a$	800	V
Grid No. 3 voltage	$V_{g_3}$	0	V
Grid No. 2 voltage	$V_{g_2}$	250	V
Grid No. 1 voltage	$V_{g_1}$	-40	V
Anode current	$I_a$	50	mA
Transconductance	$S$	4	mA/V
Amplification factor ( $g_1$ to $g_3$ )	$\mu$	5.3	

For Class C Amplifier			
Anode voltage	$V_a$	800	V
Grid No. 3 voltage	$V_{g_3}$	0	V
Grid No. 2 voltage	$V_{g_2}$	250	V
Grid No. 1 voltage	$V_{g_1}$	-100	V

# PEKING ELECTRON TUBES



**ГY-50****PENTODE**

Peak exciting grid No. 1 voltage	$V_{g_1}$	135	V
Anode current	$I_a$	$\leq 150$	mA
Grid No. 2 current	$I_{g_2}$	$\leq 20$	mA
Grid No. 1 current	$I_{g_1}$	$\leq 3$	mA
Power output	$W_o$	$> 60$	W
Frequency	$f$	66.6	MC/S

**MAXIMUM RATINGS**

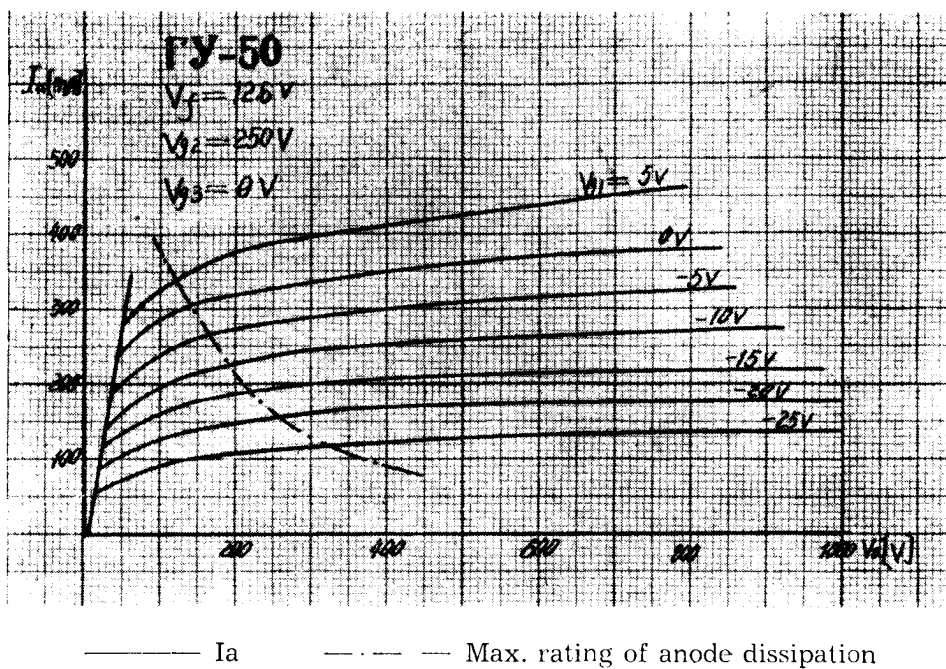
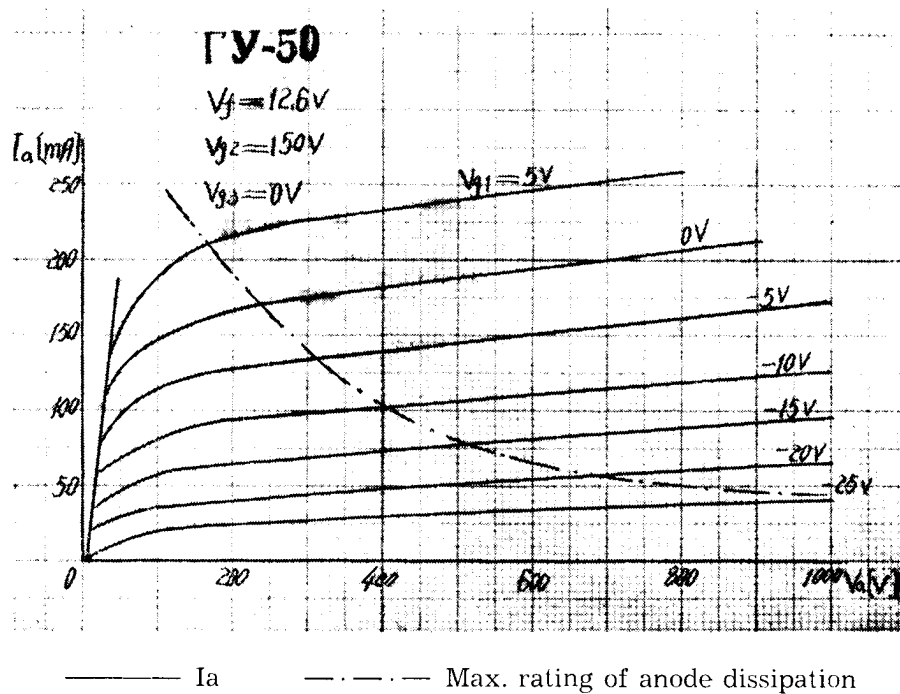
Heater voltage	$V_h$	10.8—14.5	V
Anode voltage:			
at frequency up to 46.1 MC/S	$V_a$ max	1000	V
at frequency up to 66.6 MC/S	$V_a$ max	800	V
at frequency up to 85.7 MC/S	$V_a$ max	700	V
at frequency up to 120 MC/S	$V_a$ max	600	V
Peak anode voltage	$V_{ap}$ max	3000	V
Grid No. 2 voltage	$V_{g_2}$ max	250	V
Anode dissipation	$W_a$ max	40	W
Grid No. 2 dissipation	$W_{g_2}$ max	5	W
Grid No. 1 dissipation	$W_{g_1}$ max	1	W
Heater—cathode voltage	$V_{hk}$	200	V
Cathode current	$I_k$ max	230	mA
Circuit resistance between cathode and heater	$R_{hk}$ max	5	K $\Omega$
Blub temperature	$T_b$ max	200°	C

**CAPACITANCES**

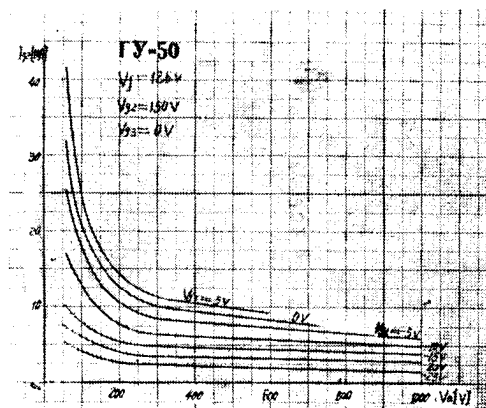
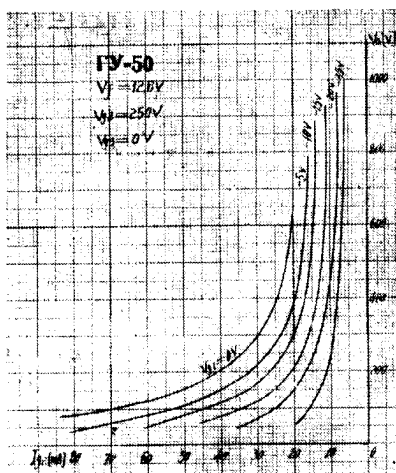
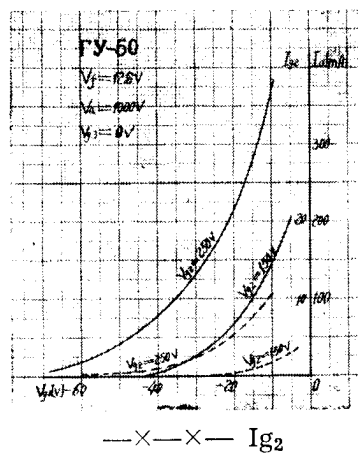
Input	$C_i$	14	pF
Output	$C_o$	9.15	pF
Grid No. 1 to anode	$C_{g_1/a}$	0.1	pF

**Base:** Special 8-pin (see drawing)**Weight:** 100 g. (max.)**Cooling:** Radiation**Mounting:** Vertical, base down.**PEKING ELECTRON TUBES**

# ГY-50



# $\Gamma Y-50$

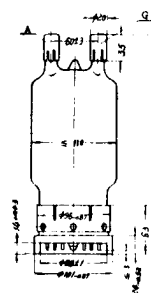
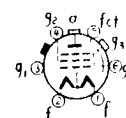
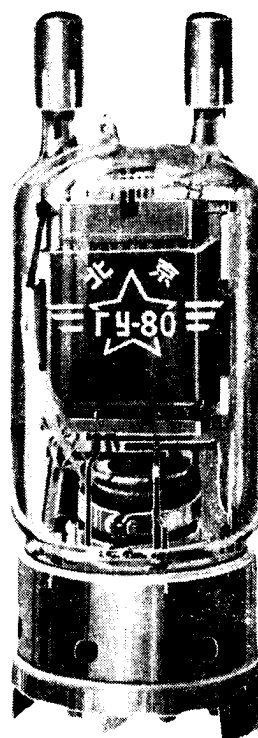


# PENTODE

# ГУ-80

## DESCRIPTION

The transmitting tube PEKING ГУ-80 is a high efficiency h.f. power pentode with a directly heated carbonized thoriated tungsten filament and a ruggedly constructed zirconium coated graphite anode. Specially designed for the last stage amplifier of the marine wireless equipment and the excitation of the large wireless equipment, and also excellent as suppressor-modulated amplifier.



## FILAMENT

Filament voltage	12.6	V
Filament current	<10.5	A

## CHARACTERISTICS

Anode voltage	Va	2000	V
Grid No. 3 voltage	Vg <sub>3</sub>	0	V
Grid No. 2 voltage	Vg <sub>2</sub>	600	V
Grid No. 1 voltage	Vg <sub>1</sub>	-140	V
Anode current	Ia	200	mA
Transconductance	S	5.5	m/AV
Amplification factor (g <sub>1</sub> to g <sub>2</sub> )	μ	3.2	

PEKING ELECTRON TUBES



**ГY-80****PENTODE****TYPICAL OPERATION**

For Class C Amplifier

Anode voltage	Va	2000	V
Grid No. 3 voltage	Vg <sub>3</sub>	0	V
Grid No. 2 voltage	Vg <sub>2</sub>	600	V
Grid No. 1 voltage	Vg <sub>1</sub>	-200	V
Peak exciting grid No. 1 voltage	Vg <sub>1</sub> ~	300	V
Anode current	Ia	605 ± 75	mA
Grid No. 2 current	Ig <sub>2</sub>	<200	mA
Grid No. 1 current	Ig <sub>1</sub>	<20	mA
Power output	Po	>675	W
Frequency	f	12	MC/S

**MAXIMUM RATINGS**

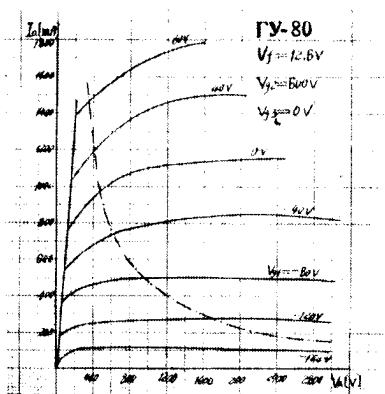
Filament voltage	V <sub>f</sub>	11.8—13.4	V
Anode voltage:			
at frequency up to 6 MC/S	Va max	3000	V
at frequency up to 24 MC/S	Va max	2500	V
at frequency up to 50 MC/C	Va max	1500	V
Peak Grid No. 2 voltage	Vg <sub>2</sub> max	1200	V
Anode dissipation	Wa max	450	W
Grid No. 2 dissipation	Wg <sub>2</sub> max	120	W
Grid No. 1 dissipation	Wg <sub>1</sub> max	10	W
Bulb temperature	Tb max	350°	C

**CAPACITANCES**

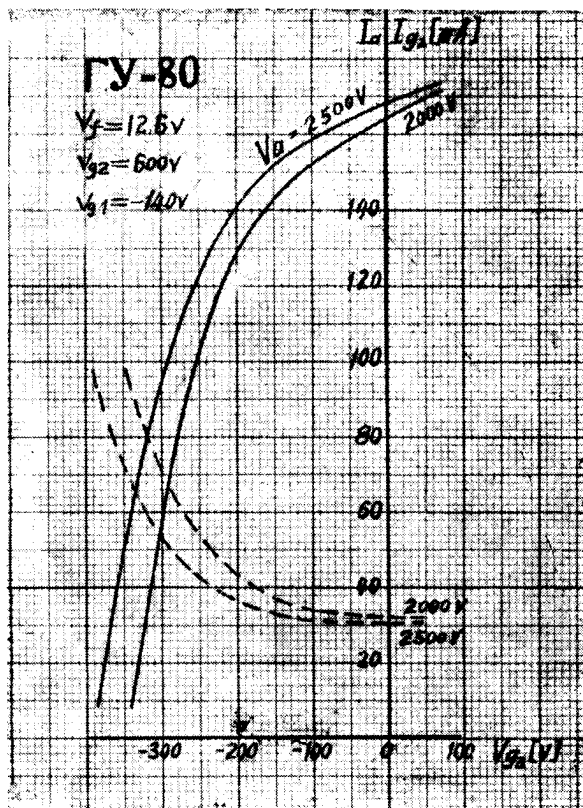
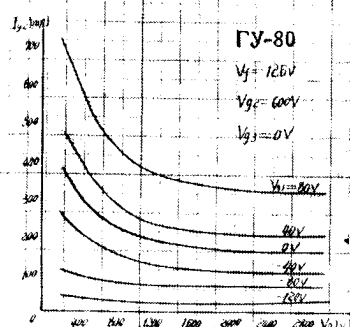
Input	Ci	28.5	pF
Output	Co	22.5	pF
Grid No. to anode	Cg <sub>1</sub> /a	<0.5	pF
Grid No. 1 grid No. 3	Cg <sub>1</sub> /g <sub>3</sub>	45	pF

**Base:** Special 6-pin (see drawing)**Weight:** 1 kgs. (max.)**Cooling:** Radiation**Mounting:** Vertical only, base down.**PEKING ELECTRON TUBES**

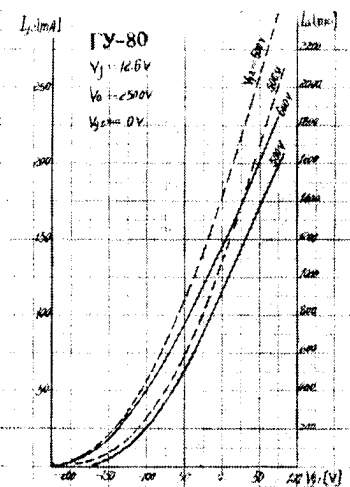
# ГУ-80



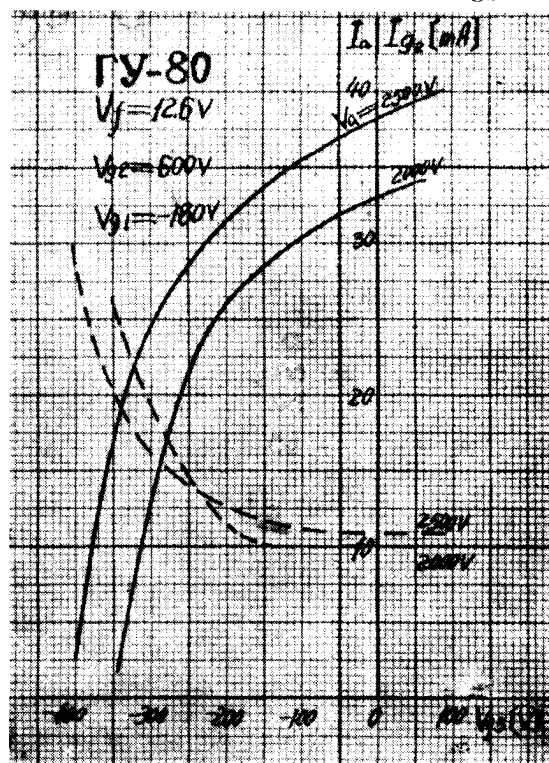
—  $I_a$  — — — — — Max. rating of anode dissipation



—  $I_a$  — — — — —  $I_{g2}$



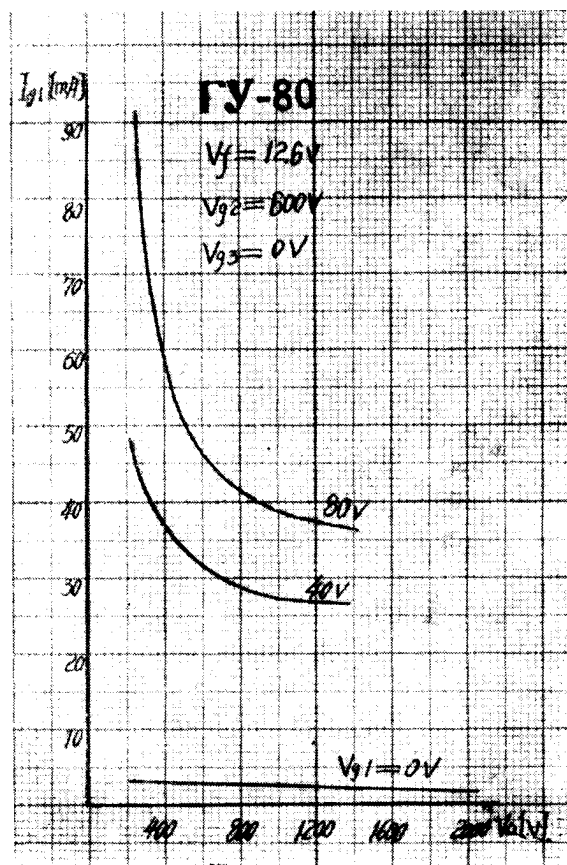
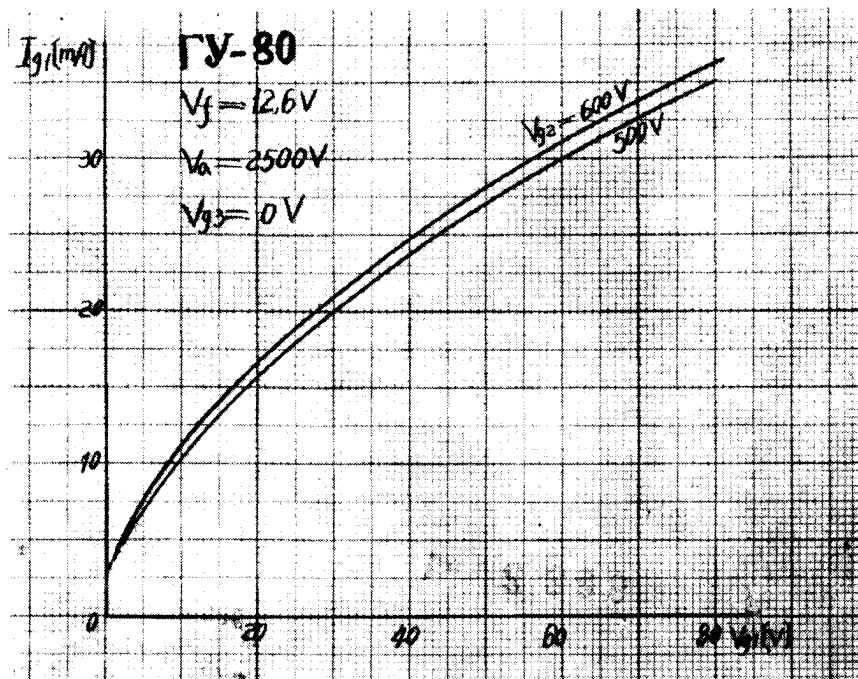
—  $I_a$  — — — — —  $I_{g2}$



—  $I_a$  — — — — —  $I_{g2}$



# ГУ-80

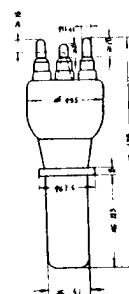
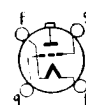
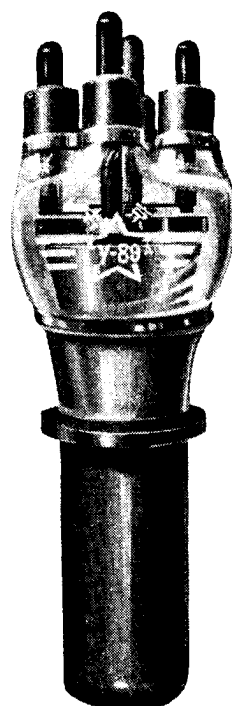


# TRIODE

# ГY-89A

## DESCRIPTION

The transmitting tube PEKING ГY-89A is a water and forced-air cooled triode with directly heated tungsten filament and designed for an anode dissipation of 5 k.w. It can be employed as h.f. amplifier and oscillator for frequency up to 100 Mc/s as well as a.f. amplifier and modulator.



## FILAMENT

Filament voltage	$V_f$	11	V
Filament current	$I_f$	124	A

## CHARACTERISTICS

Filament cold resistance	$R_f$	0.0083	$\Omega$
Cathode emission	$I_k$	9	A
Transconductance (1.6KV/3A)	S	10	mA/V
Amplification factor (3 & 5 KV/1A)	$\mu$	20	
Normal power output at frequency up to 25 MC/S	$W_o$	10	KW

PEKING ELECTRON TUBES



# ГY-89A

# TRIODE

## MAXIMUM RATINGS

Filament voltage	V <sub>f</sub> max	11	V
Filament starting current	I <sub>f</sub> st. max	185	A
Anod voltage			
at frequency up to 25 MC/S	V <sub>a</sub> max	8.5	KV
at frequency up to 75 MC/S	V <sub>a</sub> max	7	KV
at frequency up to 100 MC/S	V <sub>a</sub> max	6	KV
Anode dissipation	W <sub>a</sub> max	5	KW
Grid dissipation	W <sub>g</sub> max	300	W
Frequency	f max	100	MC/S

## CAPACITANCES

Input	C <sub>i</sub>	23.3	pF
Output	C <sub>o</sub>	3.0	pF
Grid to anode	C <sub>g/a</sub>	17.5	pF

## COOLING

Anode: by circulating water, 24 liters/min

Buld: by forced air, 40 m<sup>3</sup>/hour

**Weight:** 1.2 gks. (max.)

**Mounting:** vertical, anode down.

Note: Curves for the ГY-89A are the same as those for type ГY-89B



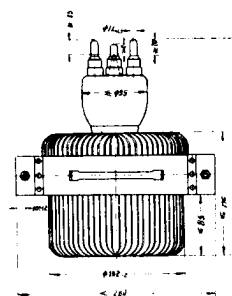
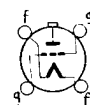
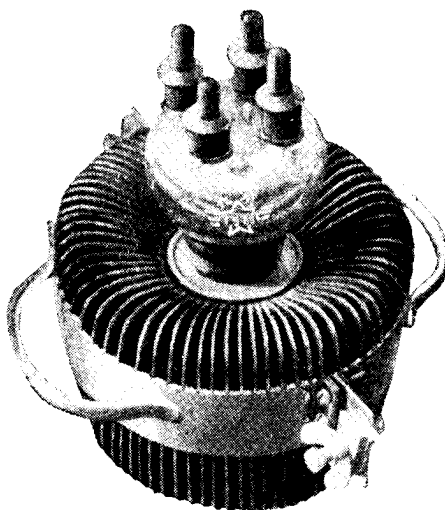
## PEKING ELECTRON TUBES

# TRIODE

# ГY-89Б

## DESCRIPTION

The transmitting tube PEKING ГY-89Б is a forced-air cooled triode with directly heated tungsten filament and is designed for an anode dissipation of 5 kw. It can be employed as h.f. amplifier and oscillator for frequency up to 100 Mc/s as well as a.f. amplifier and modulator.



## FILAMENT

Filament voltage	$V_f$	11	V
Filament current	$I_f$	124	A

## CHARACTERISTICS

Filament cold resistance	$R_f$	0.0083	$\Omega$
Cathode emission	$I_k$	9	A
Transconductance (1.6 KV/3A)	S	10	ma/V
Amplification factor (3 & 5 KV/1A)	$\mu$	20	
Normal power output at frequency up to 25 MC/S	$W_o$	10	KW

PEKING ELECTRON TUBES



# ГУ-89Б

# TRIODE

## MAXIMUM RATINGS

Filament voltage	$V_f$ max	11	V
Filament starting current	$I_f$ st. max	185	A
Andoe voltage:			
at frequency up to 25 MC/S	$V_a$ max	8.5	KV
at frequency up to 75 MC/S	$V_a$ max	7	KV
at frequency up to 100 MC/S	$V_a$ max	6	KV
Anode dissipation	$W_a$ max	5	KW
Grid dissipation	$W_g$ max	300	KW
Frequency	$f$ max	100	MC/S

## CAPACITANCES

Input	$C_i$	23.3	pF
Output	$C_o$	3.0	pF
Grid to anode	$C_{g/a}$	17.5	pF

## COOLING

Anode: by forced air 850 m<sup>3</sup>/hour

Buld: by forced air 25 m<sup>3</sup>/hour

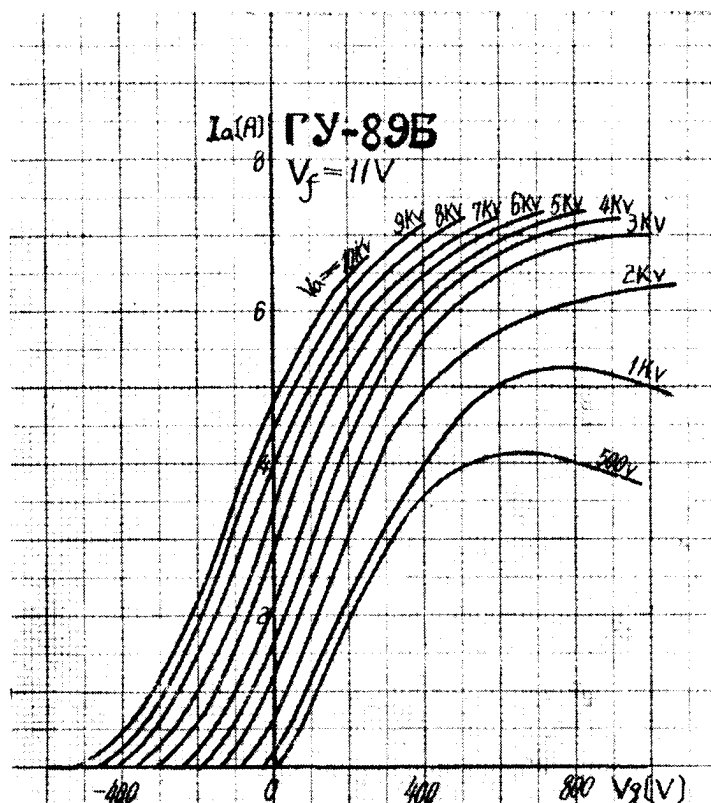
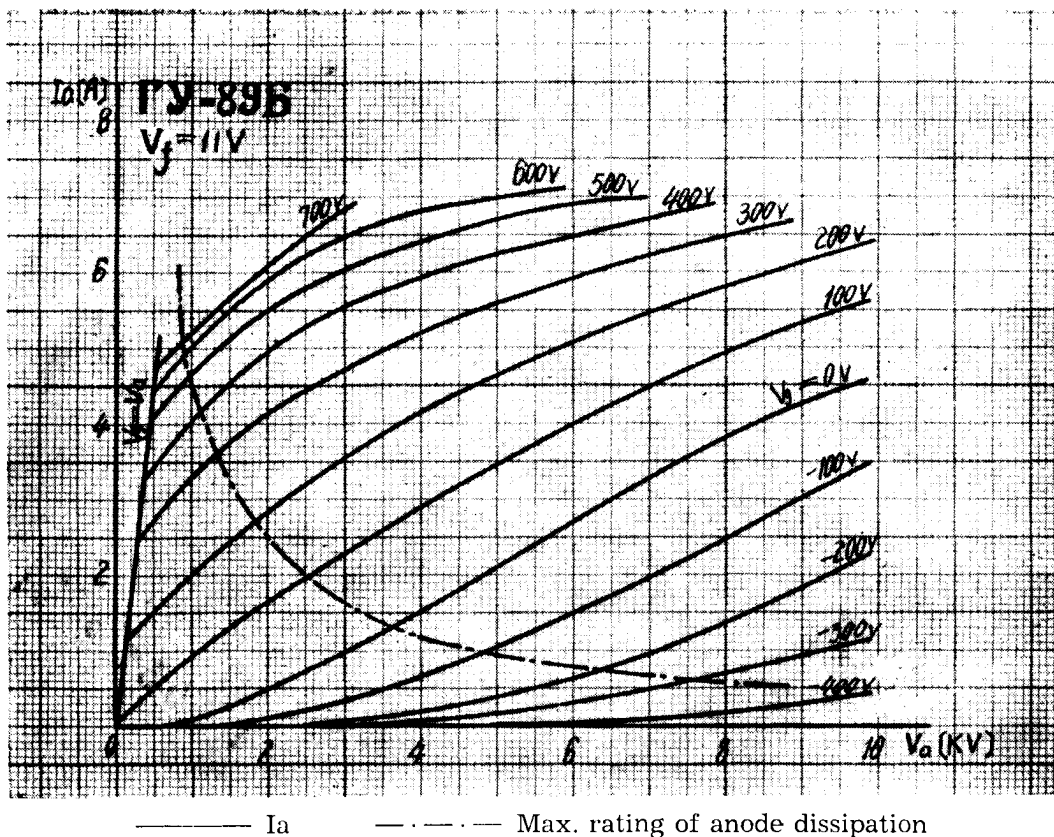
Weight: 1.7 kgs. (max.)

Mouting: vertical, anode down

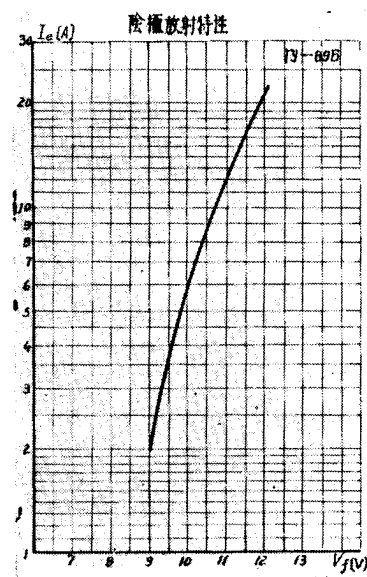
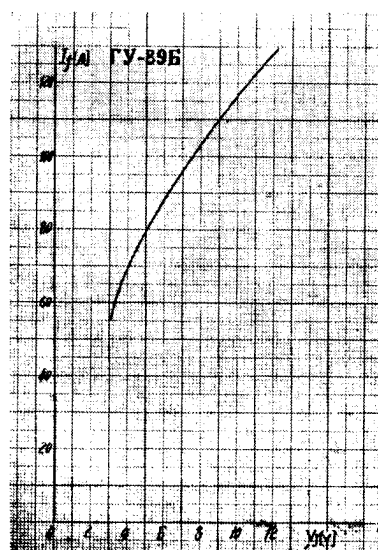
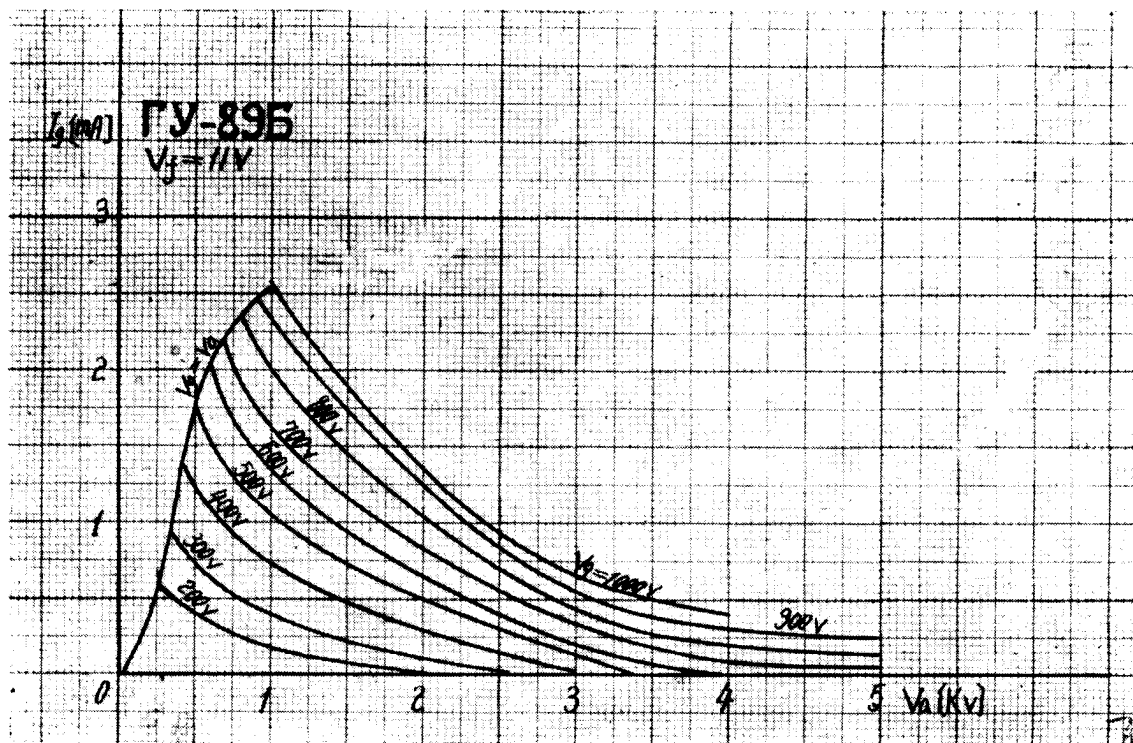


## PEKING ELECTRON TUBES

# ГУ-89Б



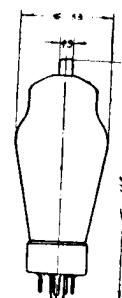
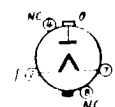
# ГУ-89Б



# HALF-WAVE RECTIFIER VU-IIID

## DESCRIPTION

The octal type PEKING, VU-IIID is a high vacuum half-wave rectifier with directly heated oxide filament, designed for use as high-tension power supply in a.c. main operated equipment.



## FILAMENT

Filament voltage	$V_f$	4	V
Filament current	$I_f$	1.1—1.5	A

## CHARACTERISTICS

Anode voltage	$V_a$	160	V
Anode current	$I_a$	> 80	mA

## OPERATING CONDITIONS

R.M.S. anode supply voltage	$V_{a\sim}$	5000	V
Load resistor	$R_l$	100	K $\Omega$
Filter capacitor	$C_f$	1	$\mu F$
D.C. output current	$I_l$	> 50	mA

PEKING ELECTRON TUBES





# VU-IIIID HALF-WAVE RECTIFIER

## MAXIMUM RATINGS

Filament voltage	$V_f$	3.8—4.2	V
Peak inverse anode voltage	$V_{pk \text{ max}}$	12	KV
Peak anode current	$I_{pk \text{ max}}$	0.4	A
Anode dissipation	$W_a \text{ max}$	12	W

**Base:** Octal

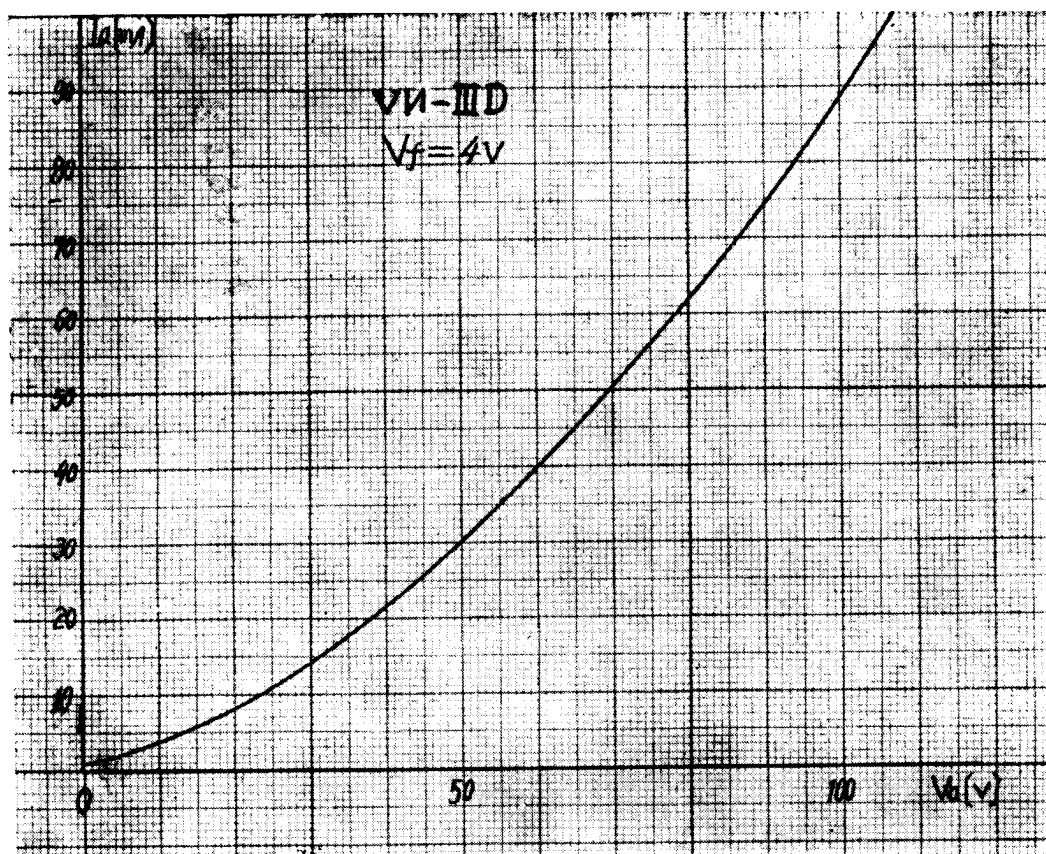
**Weight:** 100 g. (max.)

**Mounting:** Any.



PEKING ELECTRON TUBES

## VU-III D

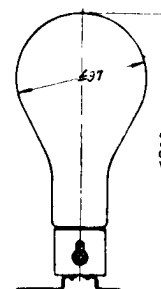
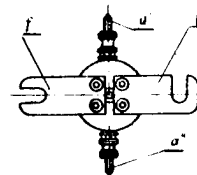
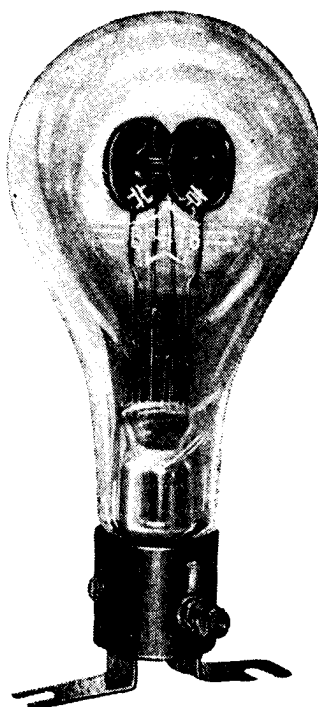


# LOW-VOLTAGE FULL-WAVE RECTIFIER

# BF-176

## DESCRIPTION

The PEKING type BF-176 is a low-voltage full-wave rectifier with argon-gas filling and a directly heated thoriated molybdenum filament. Specially designed for chargers of storage batteries or alkaline cells.



## FILAMENT

Filament voltage	$V_f$	2.5	V
Filament current	$I_f$	11	A

## CHARACTERISTICS

Peak inverse anode voltage	$V_{pk \text{ max}}$	150	V
Peak anode current	$I_{pk \text{ max}}$	9	A
D.C. output current	$I_l \text{ max}$	6	A
Arc voltage (Anode voltage drop)	$V_{arc \text{ max}}$	14	V
Ignition voltage	$V_{ig}$	< 20	V
Ambient temperature range	-50°C to + 50°C		
Filament heating-up time	$t_f \text{ min}$	30	Sec.

**Base:** Special base (see drawing)

**Weight:** 200 g. (max.)

**Mounting:** Vertical, base down.

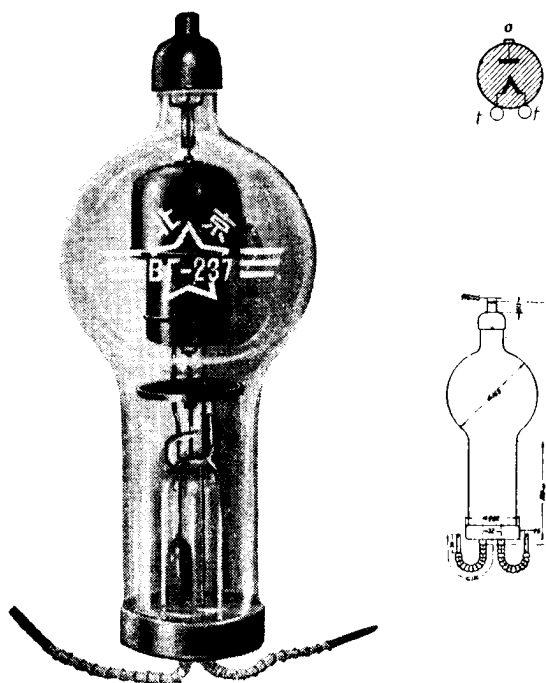
# PEKING ELECTRON TUBES



# MERCURY-VAPOUR RECTIFIER BГ-237

## DESCRIPTION

THE PEKING type BГ-237 is a half-wave, mercury-vapour hot-cathode rectifier tube for high-peak inverse voltage. It can be used in high-tension rectifiers for transmitters, h.f. industrial generators and other purposes.



## FILAMENT

Filament voltage	$V_f$	5	V
Filament current	$I_f$	$\leq 22$	A

## CHARACTERISTICS

Peak inverse anode voltage	$V_{pk}$	10	KV
Peak anod current	$I_{pk}$	10	A
Arc voltage (Anode voltage drop)	$V_{arc}$	16	V
Ambient temperature range	+15°C to + 35°C		

PEKING ELECTRON TUBES



## BΓ-237 MERCURY-VAPOUR RECTIFIER

### MAXIMUM RATINGS

Filament voltage	$V_f$	4.75—5.5	V
Peak inverse anode voltage	$V_{pk \text{ max}}$	10	KV
Peak anode current	$I_{pk \text{ max}}$	10	A
Rectified current (average value)	$I_l$	3.5	A
Frequency	$f \text{ max}$	50	C/S
Filament heating-up time	$t_f \text{ max}$	5	minutes

Note: After shipment or transit the tube must be pre-heated not less than 90 minutes per month.

**Weight:** 1.1 kgs. (max.)

**Mounting:** Vertical, anode terminal up.



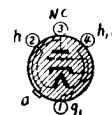
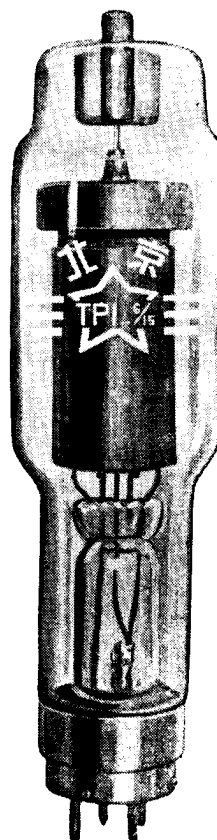
PEKING ELECTRON TUBES

# THYRATRON

# TP1-6/15

## DESCRIPTION

The PEKING type TP1-6/15 is a thyatron with mercury-vapour filling, for a peak inverse voltage of 15 KV and a d.c. current of 6.5A, and is designed for use in grid-controlled rectifier applications.



## FILAMENT

Filament voltage	$V_f$	5	V
Filament current	$I_f$	< 23	A

## CHARACTERISTICS and Limiting Value

Peak anode voltage	$V_{pk \max}$	15	KV
Peak anode current	$I_{pk \max}$	20	A
Anode current (average value)	$I_a \max$	6.5	A
Grid voltage	$V_g \min$	-100	V
Grid circuit resistor	$R_g$	1 to 5	$K\Omega$

PEKING ELECTRON TUBES



TP1-6/15

THYRATRON

Filament voltage	V <sub>f</sub>	4.75—5.95	V
Frequency	f max	50	C/S
Filament heating time	t <sub>f</sub> min	15	minutes
Ambient temperature range		+15°C to + 35°C	

Note: After shipment or transit the tube must be pre-heated not less than 60 minutes per month.

**Base:** Special 4-pin (see drawing)

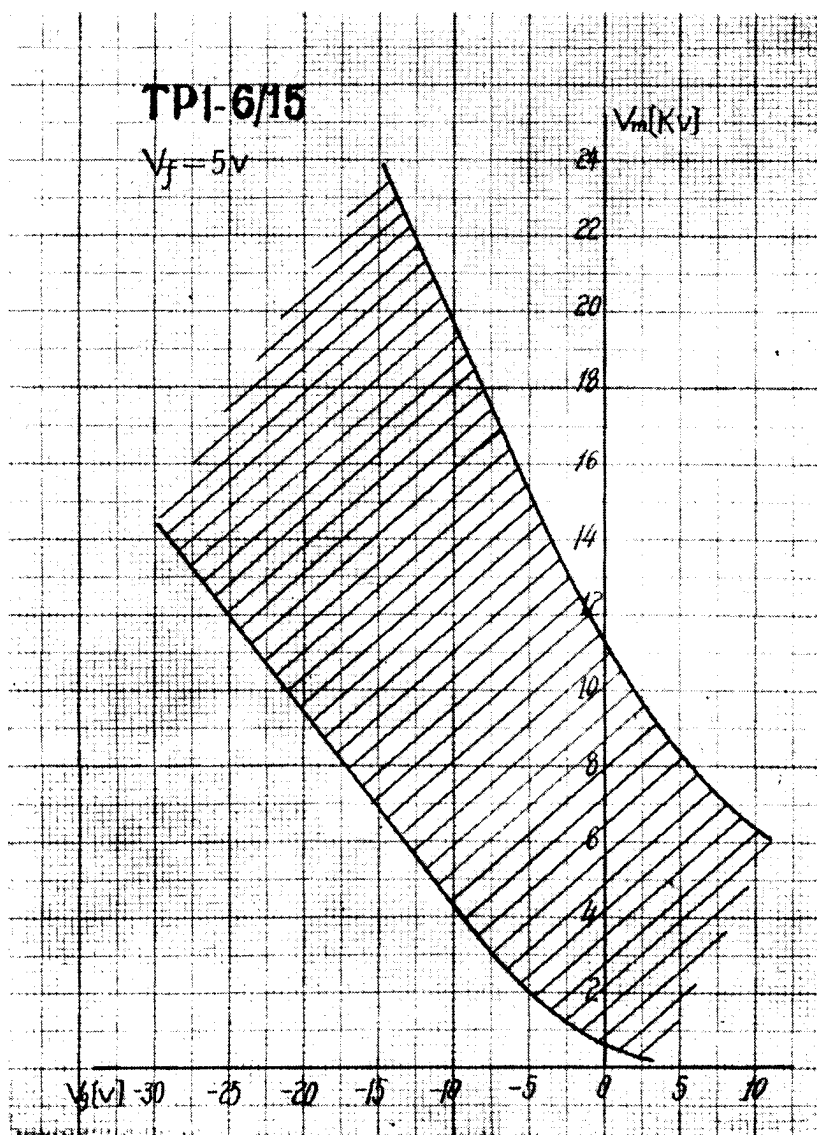
**Weight:** 1 kgs.

**Mounting:** Vertical, base down



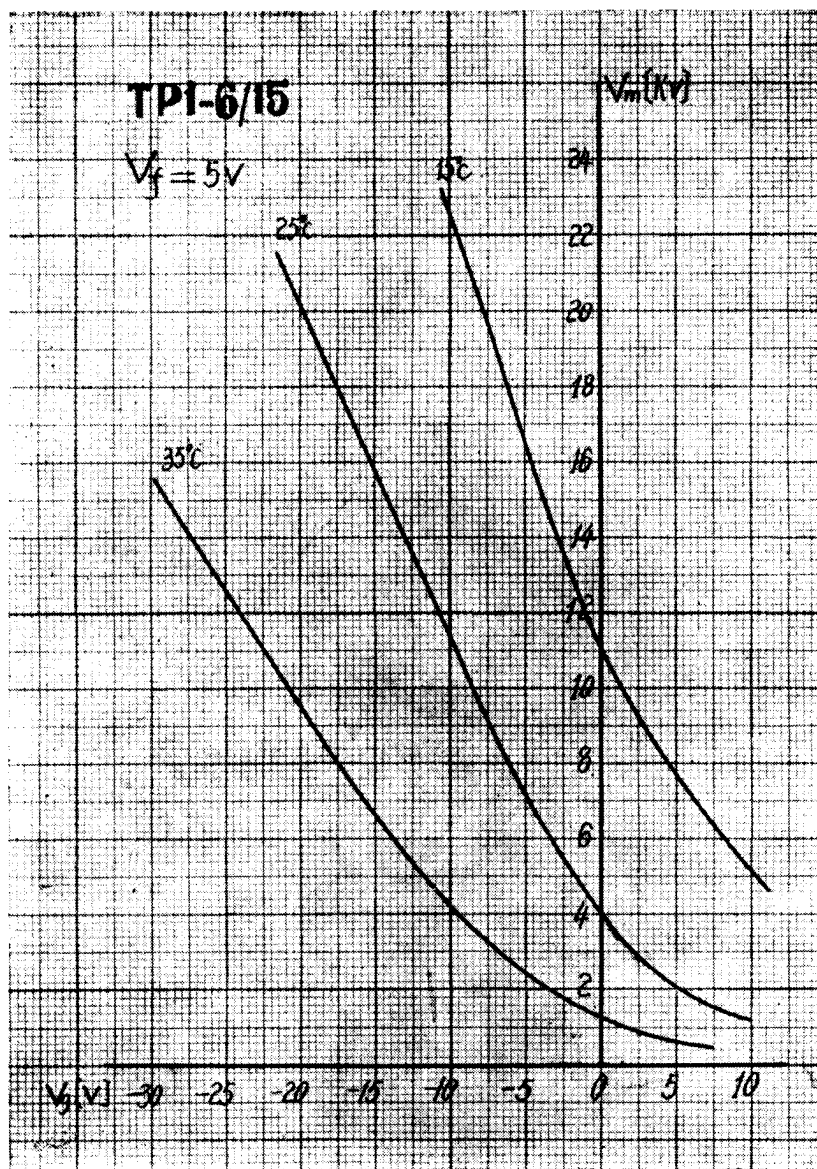
PEKING ELECTRON TUBES

TP1-6/15





TP1-6/15

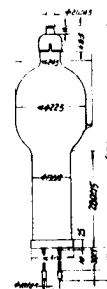
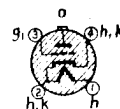
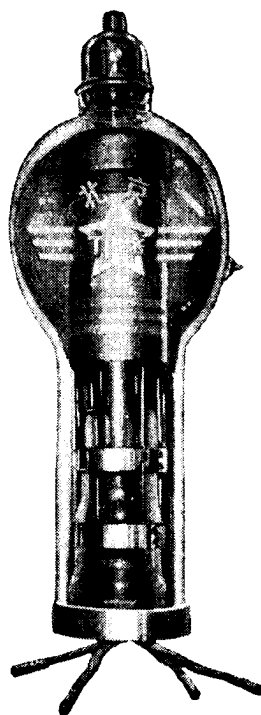


# THYRATRON

# TP1-40/15

## DESCRIPTION

The PEKING type TP1-40/15 is a thyatron with mercury-vapour filling, for a peak inverse voltage of 15 KV and a d.c. current of 40 A, and is designed for use in grid-controlled rectifier applications.



## FILAMENT

Filament voltage	$V_f$	5	V
Filament current	$I_f$	68	A

## CHARACTERISTICS and Limiting Values

Peak anode voltage	$V_{pk} \text{ max}$	15	KV
Peak anode current	$I_{pk} \text{ max}$	120	A
Anode current (average value)	$I_a \text{ max}$	40	A
Grid voltage	$V_g \text{ min}$	—100	V
Grid circuit resistor	$R_g$	1 to 5	K $\Omega$
Filament voltage	$V_f$	4.75—5.25	V
Filament heating time	$t_f \text{ min}$	30	minutes

PEKING ELECTRON TUBES



TP1-40/15

THYRATRON

Frequency	f max	50	C/S
Ambient temperature range	+ 15°C to + 35°C		

Note: After shipment or transit the tube must be pre-heated not less than 120 minutes per month.

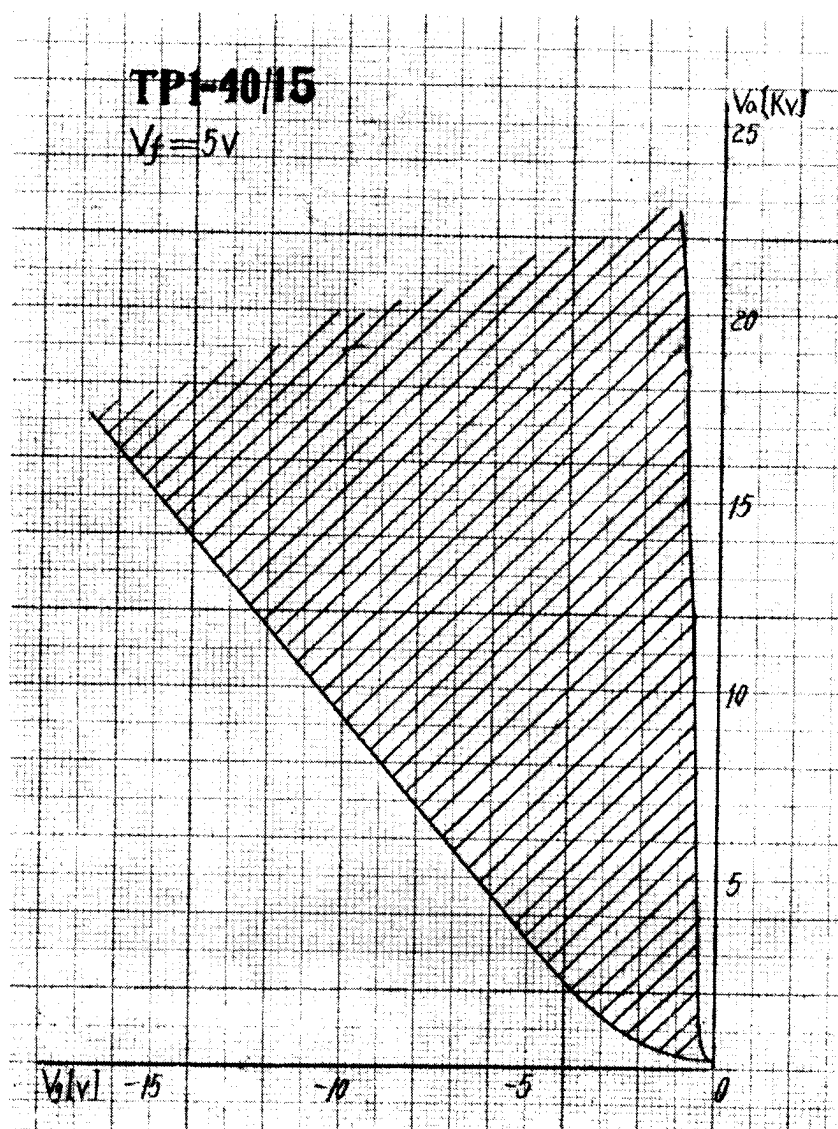
Weight: 4 kgs.

Mounting: Vertical, anode terminal up.

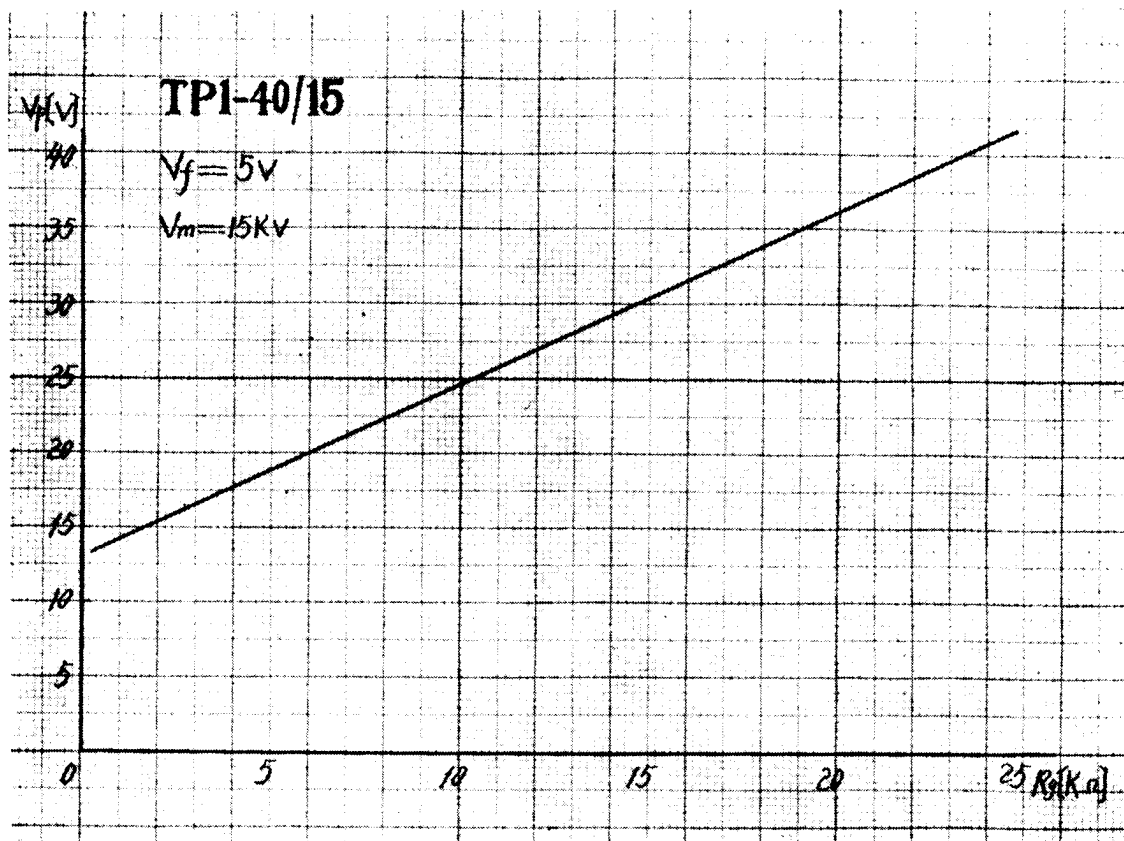


PEKING ELECTRON TUBES

# TP1-40/15



# TP1-40/15

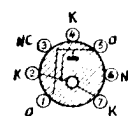


# VOLTAGE REGULATOR

# СГ1П

## DESCRIPTION

The miniature tube PE-KING СГ1П is a inert-gas-filled two-electrode tube, cold cathode glow-discharge type, intended for use as a voltage regulator.



## CHARACTERISTICS

Starting voltage	Vst	<180	V
Operating voltage	Vop	150	V
Regulation (5 to 30 mA)	Vrg	<4	V
Noise (effective value)	Vni	<5	mV

## LIMITING VALUES

Max. operating current	Iop max	40	mA
Min. operating current	Iop min	5	mA
Ambient temperature range		-60°C to + 90°C	

**Base:** Miniature 7 pin

**Weight:** 14 g. (max.)

**Mounting:** Any

# PEKING ELECTRON TUBES



## INTERCHANGEABILITY LIST

The following list indicates PEKING TYPE equivalent or similar to various other maker.

TYPE	PRODUCER	PEKING TYPE	NOTES
DAF 91	Mullard, Phillips, Telefunken	1B2Π	N
DAF 96	Mullard, Philips, R.F.T., Telefunken	1B2Π	D
DAF 191	R.F.T.	1B2Π	N
DF 91	Mullard, Philips, Telefunken	1K2Π	N
DF 96	Mullard, Philips, R.F.T., Telefunken	1K2Π	D
DF 191	R.F.T.	1K2Π	N
DK 91	Mullard, Philips, Telefunken	1A2Π	N
DK 96	Mullard, Philips, R.F.T., Telefunken	1A2Π	D
DK 192	R.F.T.	1A2Π	N
DL 92	Mullard, Philips, Telefunken	2Π2Π	N
DL 96	Mullard, Philips, R.F.T., Telefunken	2Π2Π	D
DL 192	R.F.T.	2Π2Π	N
EAA 91	Philips, R.F.T., Telefunken	6X2Π	D
EB 91	Mullard, Philips	6X2Π	D
ECC 83	Mullard, Philips, R.F.T., Telefunken, Tungsram	6H2Π	D
EF 93	Mullard, Philips	6K4Π	D
EF 95	Mullard, Philips, R.F.T.	6Ж1Π	D
EK 90	Mullard	6A2Π	D
EL 90	Mullard	6Π1Π	B
EM 80	Mullard, Philips, Telefunken Tungsram	6E1Π	D
EZ 90	Mullard	6Π4Π	C
OA 2	Philips, R.C.A.	CT1Π	D
OS 450	Tungsram	ΓY-80	D
P 50/2	R.F.T.	ΓY-50	D
QQE 04/20	Philips	ΓY-32	
RD 5 XF	Tesla	ΓY-89B	D
RD 5 YF	Tesla	ΓY-89A	D
RS 384	Telefunken	ΓY-80	D
1AB6	Philips, R.C.A., Telefunken	1A2Π	D
1AF33	Tesla	1B2Π	D
1AF34	Tesla	1B2Π	D
1AH5	Philips, R.C.A., Telefunken	1B2Π	D
1AJ5	Philips, R.C.A., Telefunken	1K2Π	D
1F33	Tesla	1K2Π	D
1F34	Tesla	1K2Π	D
1H33	Tesla	1A2Π	D
1H34	Tesla	1A2Π	D
1K22	Toshiba	2Π2C	B
1L33	Tesla	2Π2Π	D
1L34	Tesla	2Π2Π	D

TYPE	PRODUCER	PEKING TYPE	NOTES
1R5	Philips, R.C.A. Tungfram	1A2Π	N
1R5T	Tungfram	1A2Π	D
1S5	Philips, R.C.A. Tungfram	1B2Π	N
1S5T	Tungfram	1B2Π	D
1T4	Philips, R.C.A. Tungfram	1K2Π	N
1T4T	Tungfram	1K2Π	D
2B32	Toshiba, N.E.C.	ГY-32	D
2X2A	R.C.A.	2Π2C	B
3C4	Philips, R.C.A., Telefunken	2Π2Π	D
3S4	Philips, R.C.A. Tungfram	2Π2Π	N
3S4T	Tungfram	2Π2Π	D
5P7O	Toshiba	ГY-80	N
5SO45T	Elektroimpex	ГY-80	D
6AK5	Philips, R.C.A. Tungfram	6Ж1Π	D
6AL5	Philips R.C.A., Telefunken Tungfram	6X2Π	D
6AQ5	Philips R.C.A., Telefunken Tungfram	6Π1Π	B
6B32	Tesla	6X2Π	D
6BA6	Philips R.C.A., Telefunken Tungfram	6K4Π	D
6BE6	Philips R.C.A., Telefunken Tungfram	6A2Π	D
6BR5	Philips, R.C.A., Telefunken	6E1Π	D
6F31	Tesla	6K4Π	D
6F32	Tesla	6Ж1Π	D
6H31	Tesla	6A2Π	D
6L31	Tesla	6Π1Π	B
6X4	Philips, R.C.A. Tungfram	6Π4Π	C
6Z31	Tesla	6Π4Π	C
12AX7	R.C.A.	6Π2Π	D
150C2	Mullard	CG1Π	D
832-A	Philips, R.C.A.	ГY-32	D
889-A	R.C.A.	ГY-89A	D
889R-A	R.C.A.	ГY-89B	D

Notes: D — Direct equivalents.

C — Direct equivalents but connection of  
electrodes differences.

B — Direct equivalents but base differences.

N — Near equivalents.



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**(IMPORTERS & EXPORTERS)**

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